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ABSTRACT

Because of shifts in consumer tastes and preferences, demographics, technology, government regulation, and the expanding interdependence of world markets, the United States fruit and vegetable processing industries must operate in a constantly changing and uncertain economic environment. U.S. per capita use of processed fruits and vegetables is growing, thanks to improved distribution and availability, introduction of new product forms, better storage facilities, increased advertising and promotion, and increasing health consciousness among Americans. Increases in income will likely lead to increased purchases of fresh vegetables (versus processed) but will likely result in more use of processed fruit products. Changes in production have largely accompanied changes in consumer demand, and the use of forward contracts to guarantee supply has further shifted control from the food production to the food processing subsector. Increasing consumer pressures have led to more strenuous enforcement of such government regulations as labeling laws, pesticide laws, and grading standards. The growing internationalization of the U.S. fruit and vegetable processing industries has increased the importance of uncertain macroeconomic and trade policies for these industries. (More than half of this document consists of statistical tables on U.S. fruit and vegetable production, use, and export.) (MN)

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Division**

U.S. Fruit and Vegetable Processing Industries

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ABSTRACT

Like most food manufacturing subsectors, the fruit and vegetable processing subsector is in a dynamic era of change. Structural transformations of the fruit and vegetable processing subsector have been preceded by changes in technology, market conditions, and regulations. However, these changes may not be homogeneous across subsectors or even within subsector industries. Therefore, studies which take an aggregate approach to evaluating structure and performance of the food manufacturing sector may overlook important subsector-specific changes. This report describes the current structure of the U.S. fruit and vegetable processing industries and the economic, technical, and regulatory factors prevalent in molding its structure.

Keywords: processing fruits and vegetables, demand, supply, industry structure, government regulation.

THE AUTHORS

All authors are agricultural economists in the Commodity Economics Division, Economic Research Service, U. S. Department of Agriculture.

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SUMMARY

Shifts in consumer tastes and preferences, demographics, technology, and government regulation, and the expanding interdependence of world markets, present a constantly changing and uncertain environment in which the U.S. fruit and vegetable processing industries must operate. This report describes the current structure of the U.S. fruit and vegetable processing industries and the economic, technical, and regulatory factors prevalent in molding its structure.

U.S. per capita use of processed fruits and vegetables is growing because of improved distribution and availability, introduction of new product forms, better storage facilities, higher disposable personal incomes, increased advertising and promotion, and the desire of increasingly health-conscious Americans to include more fruits and vegetables in their diets. However, per capita growth in use has not been homogeneous across processed product forms. Fresh and frozen fruit and vegetable products have gained in popularity over canned because U.S. consumers perceive these product forms as more appealing, of better quality, and more healthy.

U.S. consumers are likely to respond to increases in income by purchasing more fresh than processed vegetable products. Of the processed fruit and vegetable forms, however, consumers are most likely to increase expenditures for frozen vegetables and potato products, vegetable juices, and potato chips and shoestrings. Expenditures for fruit products are generally less responsive to rising incomes than vegetables. But, given an increase in income, consumers are likely to spend more on processed fruits than fresh, especially frozen fruit juices.

Slower population growth in the United States will likely lead to changes in age distribution which should increase expenditures for processed fruit and vegetable products if expenditure patterns continue along previous patterns. However, income, changing tastes and preferences, and geographical migration will also be significant factors.

Fruit and vegetable production for processing continues to be major proportion of total bearing and harvested area of commercial fruits and vegetables. While area harvested for processing fruits and vegetables has declined moderately since 1970, total production has risen because of widespread use of higher yielding plant varieties and the adoption of mechanical harvesting practices. The West has maintained the largest growth in production of fruits and vegetables for processing in recent years because of expanding area under irrigation and a relatively longer growing season than other processing fruit and vegetable regions.

Changes in production have largely accompanied changes in consumer demand. Most growth in processing vegetable production since 1970 has been in vegetables for freezing, while area devoted to canning vegetables declined with the exception of processing tomatoes. Bearing area in noncitrus fruits also expanded because of heavy domestic and export demand for raisins and frozen noncitrus juice concentrates.

The United States became a net importer of fresh and processed fruit and vegetable products during 1984. The trade deficit was fueled by the relative strength of the dollar, more competition with subsidized processed fruit and

vegetable products in world markets, and tariff and nontariff barriers imposed by several foreign countries. The export picture for U.S. processed fruit and vegetable products improved in 1986 with the introduction of the "targeted export assistance" program, and the declining strength of the dollar. The increase in exports to Japan and the Pacific Rim countries has been most dramatic.

Use of forward contracts to guarantee supply, vertical integration, increasing product differentiation, and diversification, has encouraged industrialization, shifts in control from the production to the processing stage, and increased concentration in the fruit and vegetable processing subsector. The balance of countervailing power held by growers in the form of vertical integration into processing via cooperatives, marketing orders and agreements, and bargaining associations is variable. Vertical integration into processing appears to be most successful in stabilizing grower returns.

Concentration in the U.S. fruit and vegetable processing subsector varies by industry. Concentration in the canning industries remained relatively stable between 1977 and 1982, while the share of total industry shipments accounted for by the four largest freezing firms increased moderately between the 2 years. Concentration is highest in the dried and dehydrated fruit and vegetable industry. Firm concentration within product classes appears to increase with the degree of product differentiation which firms are able to portray to consumers.

Most fruit and vegetable processing firms advertise and participate in new product development. New product development in the fruit and vegetable processing subsector largely evolves in response to changing consumption patterns and technological change. The most important innovations in recent years have been in packaging to accommodate widespread use of microwave ovens and aseptic packaging which may revitalize consumption of some declining fruit and vegetable product classes and facilitate the introduction of others. Aseptic packaged products are currently gaining in U.S. consumer and retailer acceptance because of their ease in storage and handling.

The need for government regulation in the United States, as in most countries, arises as economic conditions, technology, and society's perceptions change. U.S. farm policy, industrial policy, and consumer policy have become more interrelated in recent years due to technological advances and regulatory policies directed toward consumer protection. This has resulted in more strenuous enforcement of labeling laws, pesticide laws, and grading standards. Foreign fruit and vegetable processors exporting to the United States are also increasingly affected by consumer-oriented regulations. Moreover, the growing internationalization of U.S. fruit and vegetable processing industries has increased the importance of uncertain macroeconomic and trade policies for the fruit and vegetable processing industries.

U.S. Fruit and Vegetable Processing Industries

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INTRODUCTION

Like the rest of the U.S. food manufacturing sector, the fruit and vegetable processing subsector is undergoing dynamic structural change. Continuing industrialization and internationalization has provided the impetus for dynamic structural transformation within the subsector. Changes in market conditions, such as supply and demand, technology, and policies, have preceded structural transformations of fruit and vegetable processing industries in the United States (28). 1/

The U.S. fruit and vegetable processing subsector has grown in terms of total product use. However, growth within the product industries has not been homogeneous in reflecting changing consumer demand patterns. Consumption of most canned fruit and vegetable products in the United States has declined, while that for most frozen and dried products has risen. A growing trend in consumer use of fresh fruits and vegetables in recent years has affected the demand for many processed fruit and vegetable products.

Domestic supply conditions have shifted to meet changing consumer demand patterns. However, processed fruit and vegetable imports continue to account for a growing percentage of processed fruit and vegetable products in U.S. markets, while U.S. exports have declined. Today, the United States is a net importer of processed fruits and vegetables. Controversy increases over the protection of U.S. markets and means to increase exports.

Technological innovations also induce structural changes by altering the economic environment in which U.S. fruit and vegetable processing firms must operate. For example, advances in harvesting technology for fruits and vegetables have shifted fruit and vegetable production and processing activities west, where producers and processors gain economies of size not available in other production areas. Processing technologies, such as

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1/ While definitions in the literature vary, for this study, the term "sector" refers to the Bureau of the Census 2-digit Standard Industrial Classification (SIC) code designations for manufacturers; "subsectors" are the 3-digit industry classifications; "industries" are the 4-digit classifications; and 5-digit designations refer to "product classes." Underscored numerals in parentheses refer to items listed in the References section.

irradiation, aseptic processing, and packaging, reduce costs and foster consumer demand. However, new technology is often accompanied by government regulation oriented primarily toward consumer protection. Increasing government regulation may encourage oligopolistic market conditions if small firms are unable to meet regulatory requirements (14).

This report is a description of the U.S. fruit and vegetable processing subsector. We describe the current industry structure by providing information on the number, location, size, and concentration of firms. We assess economic, technological, and regulatory forces which affect the structure of the U.S. fruit and vegetable processing industries.

CONSUMER DEMAND AND EXPENDITURE TRENDS FOR PROCESSED FRUITS AND VEGETABLES

Fruit and vegetable processors receive consumer demand signals from three different marketing channels: retailers, wholesalers servicing foodservice operators and smaller retailers, and exporters. These signals reflect changing consumer tastes, preferences, and demographics, which largely determine the composition, design, and quantity of products produced by U.S. fruit and vegetable processors.

Use Trends

U.S. fruit and vegetable consumption is growing, as per capita use of fruits and vegetables increased 23 percent from 149.9 kilograms (kgs) per person (fresh weight equivalent) in 1970 to 184.6 kgs in 1985 (table 1).2/ This trend represents an average annual growth rate of 1.4 percent for vegetables and 1.2 percent for fruits during the 16-year period. Total per capita vegetable use reached 89.1 kgs per person in 1985, up almost 26 percent from 1970, while per capita fruit use reached 95.5 kgs, 20 percent more than total fruit use in 1970. Many factors are responsible for the increase in use: improved distribution and availability, new product forms, better storage facilities, higher disposable personal incomes, more advertising and promotion, and the desire of more health-conscious Americans to include fruits and vegetables in their diets.

Per Capita Vegetable Use

The growth in per capita vegetable use has not been uniform across fresh, canned, and frozen products; each of the product forms has experienced different periods of popularity. Fresh and frozen vegetables have gained recently in popularity over canned. Although canned vegetable use rose at an average rate of 1.4 percent per year between 1970 and 1985, use actually

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2/ The calculation of U.S. per capita use differs between fruits and vegetables. U.S. per capita fruit use is calculated by the formula (TS-E-S-M)/CP where TS is total supply is E is exports, S is shipments, M is military purchases, and CP is U.S. civilian population on July 1 (which reflects only fruit use by the U.S. civilian population). U.S. per capita vegetable use, (TS-E-S)/P, reflects use by the total U.S. population as data on U.S. military vegetable purchases are unavailable. The data available for U.S. per capita fruit use are product weight at retail converted back to fresh weight basis, while U.S. per capita vegetable use is calculated on a farm weight basis. Per capita use is a useful proxy for consumption.

Table 1--U.S. per capita use of fruits and vegetables 1/

Year	Fruits	Vegetables
	Kilograms	
1970	79.3	70.6
1971	82.0	78.0
1972	81.1	79.0
1973	83.0	80.9
1974	84.4	83.6
1975	93.0	81.7
1976	91.7	86.4
1977	92.3	81.4
1978	86.8	85.2
1979	88.3	84.2
1980	90.9	82.4
1981	87.5	80.2
1982	90.4	76.2
1983	95.2	80.9
1984	89.2	88.5
1985	95.5	89.1

1/ Fruits are in fresh weight equivalent while vegetables to reflect farm weight equivalent. Fruits and vegetables used compute per capita use are listed in appendix tables 1 and 2.

Source: U.S. Dept. of Agriculture, Economic Research Service.

declined 3 percent per year between 1976 and 1980. Fresh and frozen vegetable use grew 2 and 3 percent, respectively, over the 16-year period.

The recent positive growth rates in total use of fresh and frozen vegetables are largely the result of changing American lifestyles and consumer tastes and preferences. Consumers perceive fresh and frozen products as more appealing, of better quality, and more nutritious than canned. Frozen vegetable consumption is rising compared with fresh vegetables because more women in the work force have increased the demand for more convenient foods (products requiring less preparation time). The percentage of vegetables frozen remains small compared with the canned and fresh forms. Larger growth rates in per capita frozen vegetable use indicates that U.S. consumers are substituting frozen vegetables for fresh and canned. Frozen vegetables accounted for 7.6 of total per capita vegetable use in 1970 compared with 44 percent for canned and 48.4 percent for fresh (table 2). By 1985, frozen vegetable use (excluding potatoes) reached almost 8 kgs per person, or 9.3 percent of total per capita vegetable use, while fresh and canned use declined 1.4 and 0.4 percentage points, respectively, over the same period.

Table 2--U.S. Per capita use of vegetables by type 1/

Year	Grand total	Vegetables		
		Fresh	Canning	Freezing
			Kilograms	
1970	70.64	32.35	33.23	5.06
1971	77.96	32.09	40.01	5.86
1972	78.97	32.53	40.31	6.13
1973	80.87	33.26	40.60	7.02
1974	83.55	33.80	42.81	6.94
1975	81.65	33.40	41.99	6.26
1976	86.35	34.52	45.39	6.44
1977	81.43	34.54	39.92	6.97
1978	85.23	34.82	43.22	7.19
1979	84.18	36.07	41.15	6.97
1980	82.42	36.56	39.26	6.61
1981	80.17	35.85	37.26	7.06
1982	76.24	37.33	35.72	7.72
1983	80.86	37.38	36.46	7.03
1984	88.52	39.65	41.26	7.61
1985	89.06	40.24	40.83	7.99

1/ See appendix table 2 for listing of vegetables included.

Source: U.S. Dept. of Agriculture, Economic Research Service.

Canned tomatoes and tomato products dominate U.S. canned vegetable use, accounting for over 70 percent of total per capita vegetable use since 1970 (table 3). Potatoes were the most important frozen vegetable product used during 1970-85, growing at an average annual rate of 2.8 percent between 1970 and 1985. Americans used 19.21 kgs of frozen potatoes per person in 1985, 53 percent more than in 1970 and 1.7 percent more than in 1984 (table 4).

Per Capita Fruit Use

U.S. per capita use of noncitrus fruits has grown at the modest rate of 0.8 percent per year, reaching 43.2 kgs in 1985 (table 5). Fresh noncitrus fruit use led the growth, expanding at an average annual rate of 1.9 percent. Consumption of most processed noncitrus fruits declined. Reduced total use of processed fruits was attributed entirely to canned fruit use, which has dropped at an annual rate of 3.6 percent since 1970. Total per capita dried fruit use rose 1 percent (because of increased raisin consumption) each year between 1970 and 1985 to reach 5 kgs in 1985. Total frozen fruit use has remained relatively steady over the past 16 years.

Table 3--U.S. per capita use of vegetables for processing, farm weight equivalent

Year	Canned					Frozen			
	Total	Snap beans	Sweet corn	Green peas	Toma-toes	Total	Snap beans	Sweet corn	Green peas
	Kilograms								
1970	32.73	1.28	6.13	0.90	24.41	3.80	0.64	2.15	1.02
1971	36.97	1.74	6.69	1.46	27.08	3.90	.63	2.23	1.03
1972	37.08	1.78	6.40	1.39	27.51	4.25	.62	2.58	1.05
1973	37.08	2.59	6.34	1.12	27.03	4.59	.77	2.98	.84
1974	39.45	2.69	5.47	1.91	29.37	4.35	.68	2.92	.75
1975	38.70	2.03	6.43	1.56	28.68	4.45	.53	3.16	.77
1976	41.88	1.32	6.32	1.10	33.15	4.45	.69	2.82	.93
1977	36.54	2.24	6.23	1.02	27.06	4.74	.63	3.27	.84
1978	39.65	2.31	6.00	.94	30.40	4.89	.62	3.52	.75
1979	37.89	2.66	5.93	2.09	27.21	4.60	.64	3.32	.65
1980	36.39	1.84	4.84	.98	28.73	4.60	.62	3.06	.93
1981	34.34	1.67	5.39	.90	26.38	4.89	.76	3.28	.85
1982	35.28	1.51	5.63	.93	27.21	5.51	.69	4.37	.44
1983	36.06	1.57	4.44	.86	29.19	4.93	.67	3.47	.78
1984	40.73	2.19	5.43	1.44	31.67	5.35	.82	3.71	.82
1985	37.71	2.05	5.23	1.37	29.05	5.78	.85	4.19	.74

Source: U.S. Dept. of Agriculture, Economic Research Service.

Total per capita use of citrus fruits has risen at a much faster rate than noncitrus consumption, primarily because of almost yearly increases in frozen citrus items during the past 16 years (table 6). Frozen citrus juice use has risen ever since the successful introduction of frozen concentrated orange juice (FCOJ) in the mid-1940's. FCOJ use rose at an average annual rate of 4.6 percent since 1970 and reached a record 37.1 kgs per person in 1985. However, a very large quantity of FCOJ for U.S. consumption is imported, mostly from Brazil, after recent freezes in Florida significantly reduced domestic orange production. The sharp drop in domestic citrus production in Florida caused by freezing temperatures during 1980/81, 1981/82, 1983/84, and 1984/84, and in Texas during 1983/84, was also largely responsible for declines in per capita fresh citrus and chilled juice use.[3] Rising popularity of better tasting FCOJ largely caused the decline in U.S. canned citrus juice use.

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[3] U.S. chilled citrus juice data do not include the increasing amount of Brazilian concentrate imports being shipped to ports outside Florida for reconstitution and sale as chilled juice.

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Table 4--U.S. per capita use of potato products, farm weight equivalent

Year	Total use					Per capita use				
	Total	Canned	Frozen	Chips and shoestrings	Dehydrated	Total	Canned	Frozen	Chips and shoestrings	Dehydrated
	1,000 metric tons					Kilograms				
1970	5,807	192	2,806	1,627	1,182	21.31	0.89	12.54	7.89	5.42
1971	5,920	207	2,883	1,605	1,226	22.43	.96	13.69	7.78	5.57
1972	5,913	195	2,904	1,568	1,245	22.43	.96	13.92	7.56	5.62
1973	6,396	236	3,171	1,564	1,425	22.74	1.02	14.33	7.39	5.92
1974	6,826	209	3,557	1,487	1,572	23.91	1.04	15.74	7.13	6.57
1975	6,891	182	3,628	1,547	1,534	24.55	.91	16.62	7.02	6.65
1976	7,799	203	4,197	1,569	1,830	25.97	.88	17.94	7.14	7.41
1977	7,691	239	4,289	1,676	1,487	27.62	1.00	19.25	7.36	5.16
1978	7,748	217	4,307	1,716	1,508	27.70	1.03	19.05	7.62	5.27
1979	7,372	215	4,025	1,736	1,396	26.86	.96	18.23	7.67	4.87
1980	6,851	184	3,669	1,719	1,280	24.97	.88	16.51	7.58	4.25
1981	7,713	189	4,384	1,785	1,355	25.51	.81	17.09	7.61	4.78
1982	7,541	208	4,232	1,844	1,257	26.78	.85	18.13	7.80	4.58
1983	7,629	187	4,264	1,965	1,214	26.64	.84	17.69	8.11	4.41
1984	8,268	201	4,884	1,920	1,263	27.93	.82	18.89	8.22	4.53
1985	8,557	171	5,017	1,920	1,359	28.44	.93	19.21	8.30	4.79

Source: U.S. Dept. of Agriculture, Economic Research Service.

Table 5--U.S. per capita use of noncitrus fruit, fresh weight equivalent

Year	Fresh	Canned fruit	Canned juice 1/	Frozen	Dried	Total
			Kilograms			
1970	23.5	7.2	1.6	1.7	4.3	38.2
1971	23.5	6.6	1.7	1.8	4.2	37.8
1972	21.8	6.3	1.2	1.8	3.2	34.3
1973	22.8	6.3	1.4	1.8	4.1	36.3
1974	23.4	5.9	1.3	1.4	3.9	35.9
1975	25.1	5.9	1.5	1.6	4.7	38.8
1976	24.9	6.1	1.6	1.5	4.1	38.3
1977	25.3	6.2	1.4	1.6	4.0	38.5
1978	25.7	5.4	1.8	1.6	3.3	37.8
1979	26.8	5.4	1.4	1.3	4.0	39.0
1980	27.5	5.3	1.5	1.5	3.8	39.6
1981	27.7	5.0	1.6	1.4	4.3	40.0
1982	28.1	4.9	1.3	1.5	4.7	40.5
1983	28.3	4.6	1.3	1.5	4.8	40.5
1984	30.3	4.5	1.2	1.5	5.0	42.4
1985 2/	31.2	4.2	1.1	1.7	5.0	43.2

1/ Does not include apple or pineapple juice. 2/ Preliminary.

Source: U.S. Dept. of Agriculture, Economic Research Service.

Expenditure Trends 4/

The trends in per capita fruit and vegetable use have also followed changes in consumer expenditures for processed fruits and vegetables versus expenditures for fresh items. Consumer expenditures are directly related to demographic factors, such as population, income, age distribution, regional migration, and employment patterns.

The U.S. civilian population expanded from 200.5 million in 1970 to 224.4 million in 1980, a 12-percent increase. According to Bureau of Census projections, the U.S. population between 1980 and 2010 is expected to increase at a rate that is less than one-half of the previous three decades, about 55.5 million for an increase of 24 percent. Slower population growth will likely lead to changes in age distribution, with profound implications for consumer expenditures for processed fruits and vegetables (5).

4/ The following discussion draws heavily from two U.S. consumer demand studies conducted by agricultural economists at the U.S. Department of Agriculture (USDA), Economic Research Service, using data acquired in the 1977-78 USDA Nationwide Food Consumption Survey (NFCS) and the 1980-81 Continuing Consumer Expenditures Survey of the Bureau of Labor Statistics (5, 34).

Table 6--U.S. per capita use of citrus fruit, fresh weight, equivalent 1/

Year	Fresh	Canned juice	Chilled juice 2/	Frozen juice	Total
			Kilograms		
1970	13.3	4.7	4.3	18.7	41.1
1971	13.2	4.8	4.4	21.7	44.2
1972	12.4	4.7	4.8	24.9	46.7
1973	12.4	5.0	4.8	24.5	46.7
1974	12.4	4.9	4.7	26.5	48.5
1975	13.3	4.8	5.2	30.9	54.2
1976	13.2	4.7	5.6	30.0	53.4
1977	13.3	4.5	5.2	30.9	53.9
1978	12.0	5.0	5.6	26.4	49.0
1979	11.1	5.1	5.0	28.1	49.3
1980	13.1	4.7	5.4	28.1	51.3
1981	11.2	4.4	3.8	28.0	47.5
1982	11.2	3.6	3.2	31.9	49.9
1983	13.3	2.7	3.8	34.9	54.7
1984	10.8	2.6	3.4	30.0	46.8
1985 3/	10.2	2.1	3.0	37.1	52.3

1/ Crop year basis. Crop year beginning October or November prior to year indicated. 2/ Florida only. 3/ Preliminary.

Source: U.S. Dept. of Agriculture, Economic Research Service.

Along with the growth in population has been an increase in disposable income and consumer expenditures for domestically produced farm food. In 1982, the latest year for which actual expenditure data were available, fruits and vegetables accounted for 21 percent of all consumer expenditures for domestic farm food, up from 20 percent in 1970 (table 7). Consumer expenditures for processed fruits and vegetables as a percentage of total fruit and vegetable expenditures have ranged from a low of 49.6 percent in 1973 to a high of 53.7 percent in 1982.

While U.S. consumer expenditures for processed fruits and vegetables as a percentage of all expenditures for domestic farm food increased from 10.5 in 1970 to 11.3 percent (preliminary) in 1984, processed fruit and vegetable expenditures as a percentage of disposable income declined 0.2 percentage points. An estimated 6.7 cents of every dollar used for food-at-home purchases during 1972-73 was spent on fruits and 7.9 cents on vegetables. However, in 1980-81, expenditures for fruit rose to 8.2 cents, while vegetable expenditures dropped slightly to 7.4 cents, mainly as a result of declining purchases of processed vegetable products.

Table 7--Personal disposable income, consumer expenditures for domestic farm food products, and consumer expenditures for domestic processed fruits and vegetables, United States, selected years, 1970-84

Year	Disposable income	Consumer expenditures			Consumer expenditures for processed fruits and vegetables		
		Domestic farm food	Fruits and vegetables	Processed fruits and vegetables 1/	As a percentage of expenditures for domestic farm food	As a percentage of disposable income	As a percentage of fruits and vegetables
	Million dollars				Percent		
1970	695,300	110,590	22,647	11,600	10.5	1.7	51.2
1973	914,500	138,817	28,608	14,200	10.2	1.6	49.6
1976	1,194,400	183,301	38,546	20,300	11.1	1.7	52.7
1979	1,650	245,226	51,231	26,600	10.8	1.6	51.9
1982	2,180,500	298,908	63,816	34,300	11.5	1.6	53.7
1984 2/	2,576,800	332,200	NA	37,500	11.3	1.5	NA

NA = Not available.

1/ Estimated. 2/ Preliminary.

Source: (37, 8).

Processed and Fresh Vegetable Expenditures

In 1980-81, 64.4 percent of the U.S. population purchased vegetables every week (5). However, more U.S. consumers purchased fresh (55.8 percent) rather than processed (43.5 percent) vegetables on a weekly basis. Part of this difference can be explained by the necessity of purchasing fresh vegetables more regularly than processed because of limited storagebility. The home budget share allocated to processed vegetables declined from 44 percent of total vegetable expenditures in 1972-73 to 38 percent in 1980-81.

U.S. consumers tend to substitute purchases of relatively higher priced vegetable products for lower priced products when their incomes rise. However, the influence of income on per capita expenditures for processed versus fresh vegetables varies by product form. U.S. consumers tend to respond to increases in income by purchasing more fresh than processed vegetables. It was estimated that consumers would have purchased 2.4 percent more fresh vegetables in 1980-81 given a 10-percent increase in income relative to 2.3 percent more processed. However, several processed vegetable forms are associated with increasing expenditures as incomes rise, while others decline. Highly responsive processed vegetable items include frozen vegetable and potato products (4.8 and 1.4 percent more, respectively), vegetable juices (2.7 percent more), and potato chips and shoestrings (1.7 percent more). Those products with declining expenditure patterns include canned and dried vegetables (0.4 and 3.3 percent less, respectively) and canned and dried potato products (1.2 and 0.5 percent less).

Other significant factors that may influence consumer demand for processed vegetables include household age composition, geographic location, and season. Per capita expenditures for processed vegetables tend to increase by age until the 15-19 years group. Then they decline sharply and slowly resume an upward trend thereafter. Most U.S. processed vegetable expenditures are likely for consumption by persons 10-14 and 65-74 years old. Bureau of the Census expects the median age of the U.S. population to reach 36.3 years by the year 2000, up from the record high 30.6 years in 1982. If U.S. consumer vegetable expenditures continue along previous patterns, total expenditures for processed vegetables should increase (5).

Per capita expenditures for processed vegetables are highest in the South and Northwest and lowest in the West and North Central regions. Consumers in the West are more likely to purchase fresh vegetables, probably because of their close proximity to year-around fresh vegetable production areas.

U.S. consumer spending on processed vegetables is highest in the fall and winter months. Conversely, expenditures for fresh vegetables are highest in the spring and summer months because of the wider availability and lower prices for many locally grown vegetables. The substitution of processed for fresh vegetables during the winter months when fewer fresh vegetables are at higher prices helps to stabilize total consumer vegetable expenditures across seasons.

Processed and Fresh Fruit Expenditures

In 1980-81, 66.5 percent of the U.S. population purchased fruits on a weekly basis, but as with vegetables, more consumers purchased fresh fruit in lieu of processed. Of the processed fruit items, frozen juice products are purchased most regularly.

As a group, fruit expenditures are less affected by changes in income than vegetable expenditures. However, fruit expenditures also vary with product form and rising incomes are more likely to increase expenditures for processed fruit products than fresh. Given a 10-percent increase in income in 1980-81, consumers would have purchased 1.88 percent more fresh fruits and 2.22 percent more processed fruit products, especially frozen fruits and juices.

Household age composition, geographic location, and season are also important determinants of processed fruit expenditures. Processed fruit expenditures are highest for consumption by those under 5 years old and between 65 and 74 years. Expenditures for dried, canned, and frozen fruits and juices are particularly high for both these age groups relative to others. As with processed vegetables, total expenditures for processed fruits should increase as the median age of the U.S. population rises.

Per person expenditures for processed fruits are highest in the Northeast and West and lowest in the South and North Central regions. Fresh fruit product expenditures are highest in the West. However, the expenditure pattern for individual processed fruit groups varies, again mainly with the region's proximity to production areas. For example, consumers in the North Central region tend to spend more on canned fruit items than consumers in the other regions, while consumer expenditures for dried fruits are heaviest in the West. Similar to processed vegetables, expenditures for processed fruits are highest during the fall and winter months when fewer fresh fruit products are available at higher prices.

SUPPLY TRENDS FOR PROCESSED FRUITS AND VEGETABLES

The growth in total U.S. consumer demand for processed fruits and vegetables has encouraged increasing domestic production and imports of many processed fruit and vegetable products. Fruit and vegetable farms account for a small but growing proportion of all crop-producing farms in the United States (fig. 1). While the number of farms producing fruits and vegetables declined almost 8 percent from 133,411 in 1959 to 123,052 in 1982, the decrease has been less than that experienced in other crop-producing farms. The downward trend in fruit and vegetable farms may slow or reverse as more producers develop an interest in growing fruits and vegetables as alternatives to traditional row crops such as corn and soybeans.[5] In 1959, fruit and vegetable farms amounted to almost 10 percent of all crop-producing farms. This percentage jumped to almost 13 percent in 1982, the latest year for which data were available (35).

Fruit and vegetable farms have also undergone significant size changes. While average fruit and vegetable farm size changed very little between 1978 and 1982, sales increased.[6] In 1978, 59 percent of both vegetable and melon

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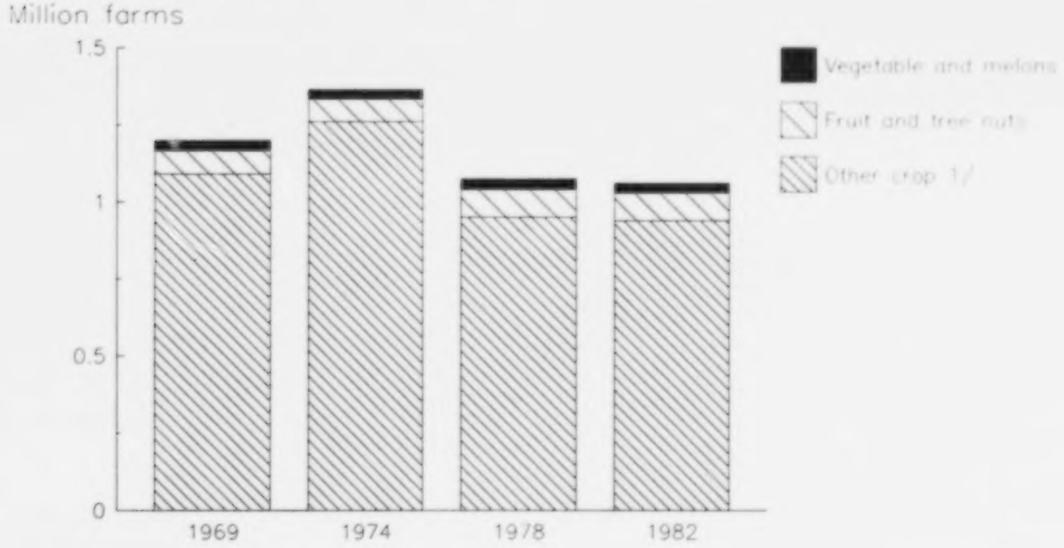
[5] Extensive research efforts are underway for determining the viability of fruits and vegetables as alternative crops in different regions. See for example (2) and (29). In addition, seminars directed toward educating potential new fruit and vegetable farmers in production and marketing methods are becoming increasingly widespread.

[6] Fruit and tree nut farms' size averaged 43.3 hectares in 1982, up 3.8 percent from 1978, while vegetable and melon-producing farms increased only 3 percent in 1982 from 41.7 hectares in 1978 (7).

Figure 1--Number of U.S. crop farms by commodity produced, selected years, 1969-82



1/ Includes cash grain, cotton, tobacco, general and other field crops.
Source: (35)

farms and fruit and tree nut farms had sales of less than $10,000 (table 8). The percentage declined to 52 percent for vegetable and melon farms and 54 percent for fruit and tree nut farms by 1982, while farms with sales greater than $10,000 increased moderately. Although only 14 percent of all vegetable farms and 9 percent of all fruit farms had sales of $100,000 and over in 1978, they accounted for 87 percent of total vegetable cash receipts, and 74 percent of the total cash receipts from fruits, nuts, and berries (table 9). These larger farms accounted for 89.3 percent of total vegetable sales and 88.6 percent of fruit sales by 1982 (35). Overall, the technological advances made in the mechanization of production activities, especially harvesting, and the biological advances made in developing higher yielding hybrid fruit and vegetable varieties have allowed for concentrated production on limited land, slowed the growth in fruit and vegetable farm size, reduced production costs, and increased returns to growers (28). Larger scale farms are usually in better positions to adopt innovative production practices.

The production of fruits and vegetables for processing and for fresh markets has evolved into two distinctive production activities: very little diversion between the two markets takes place even in short crop years.7/ Most fruit and vegetable varieties grown for processing are better adapted to mechanical

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7/ In a short crop year (short supply), the fresh market price will almost always be at a premium to the price offered by processors so there is little or no incentive to divert fresh market production into processing. During periods of abundant supply (long crops), when both fresh market and processors' prices are low, processors will usually purchase only that agreed upon in standing production contracts.

Table 8--Number of U.S. fruit and vegetable farms by type of farm and sales class, current dollars, selected years

Type of farm and sales class	1959	1964	1969	1974	1978	1982
			Number			
Vegetables and melons:						
Less than $10,000	25,030	29,829	22,726	17,936	20,660	17,435
$10,000 to $19,000	3,912	3,189	3,165	4,051	4,102	4,306
$20,000 to $39,999	2,811	2,525	2,654	3,086	3,075	3,467
$40,000 to $99,999	1,358	2,027	2,330	2,741	3,085	3,605
$100,000 to $199,999	1,666	1,222	848	1,340	1,538	2,006
$200,000 to $499,999	----	----	561	1,114	1,334	1,329
$500,000 and over	----	----	449	806	1,095	1,276
Total	34,777	38,792	32,733	31,074	34,887	33,424
Fruits and tree nuts:						
Less than $10,000	67,347	66,643	50,157	38,942	53,142	48,413
$10,000 to $19,000	14,141	11,232	9,946	10,948	9,725	9,688
$20,000 to $39,999	9,892	8,615	7,821	9,387	9,206	9,724
$40,000 to $99,999	4,387	6,185	5,164	8,473	9,693	11,716
$100,000 to $199,999	2,867	1,986	1,535	3,059	4,189	5,699
$200,000 to $499,999	----	----	633	1,588	2,526	2,706
$500,000 and over	----	----	324	732	1,201	1,682
Total	98,634	94,661	75,580	73,129	89,682	89,628

---- = Not applicable.

Source: (35).

Table 9--Farm income of U.S. fruit and vegetable farms by sales class, 1978

Item	Sales class				
	$100,000 or more	$40,000 to $99,999	$20,000 to $39,999	$10,000 to $19,999	Less than $10,000
			Number		
Farms:					
Veg., sw. corn and melons	5,000	3,000	3,000	4,000	20,000
Fruits and tree nuts	9,000	10,000	10,000	10,000	51,000
Cash receipts:			Million dollars		
Veg., sw. corn and melons	3,108	227	101	69	78
Fruits and tree nuts	4,003	764	329	173	148

Source: (35).

harvesting and often do not have characteristics desirable for fresh market sale (for example, several tomato varieties and clingstone peaches). Moreover, most fruits and vegetables destined for processing are grown under contractual arrangements between growers and processors, whereas contracting for fresh market sales seldom occurs.

Fruit and vegetable production for processing continues to be a major proportion of total bearing and harvested area of commercial fruits and vegetables (table 10). The percentage of fruit and tree nut bearing area used for processing is well over one-half of the total. While variable from year-to-year, the percentage has remained fairly constant in the 62- to 68-percent range since 1970. Conversely, although total vegetable area harvested has increased since 1970, the percentage used for processing vegetables moderately declined from 60 percent in 1970 to 56.5 percent in 1985.

Vegetables

Although area harvested to processing vegetables declined, production increased between 1970 and 1985 primarily because of widespread use of new higher yielding plant varieties and adoption of mechanical harvesting practices for many processing vegetables. Shifts in the geographic location of processing vegetable production have accompanied the increase in production.

Geographic Distribution of Production

Production of the four major processing vegetables--green beans, sweet corn, sweet peas, and tomatoes--has been heavily concentrated in the North Central

Table 10--Total U.S. bearing, harvested area, and area used for processing commercial fruits and vegetables

Year	Commercial vegetable area			Commercial fruit and tree nut area		
	Total harvested 1/	Total harvested for processing	Percentage utilized for processing	Total bearing 2/	Total bearing for processing 3/	Percentage utilized for processing
	--1,000 hectares--		Percent	--1,000 hectares--		Percent
1970	864.3	515.5	60.0	1,263.1	831.1	65.8
1071	862.7	529.8	61.4	1,284.7	867.2	67.5
1972	879.0	538.6	61.3	1,302.4	821.8	63.1
1973	944.1	593.8	62.9	1,319.2	910.2	69.0
1974	954.1	612.2	64.2	1,346.8	864.6	64.2
1975	985.8	649.2	65.9	1,370.6	847.0	61.8
1976	912.1	566.6	62.1	1,395.6	858.3	61.5
1977	921.4	570.1	61.9	1,415.1	829.9	63.1
1978	920.8	550.8	59.8	1,418.3	944.6	66.6
1979	942.3	565.5	60.0	1,420.8	969.0	68.2
1980	862.0	492.0	57.0	1,439.1	962.8	66.9
1981	841.1	472.0	56.1	1,431.6	911.9	63.7
1982	886.2	506.0	57.1	1,437.3	963.0	67.0
1983	864.1	484.6	56.1	1,449.1	940.5	64.9
1984	911.6	512.4	56.2	1,444.4	923.0	63.9
1985	914.6	516.6	56.5	1,422.3	945.8	66.5

1/ Includes broccoli, cauliflower, carrots, celery, sweet corn, lettuce, onions, tomatoes, and melons for fresh market and snap beans, sweet corn, green peas, and tomatoes for processing. 2/ Includes grapefruit, lemons, limes, oranges, tangelos, tangerines, Temples, apples, apricots, cherries, grapes, nectarines, peaches, pears, plums, prunes, cranberries (beginning 1983), dates, avocados, bananas, berries (until 1979), figs, kiwifruit (beginning 1980), olives, papayas, pineapples, pomegranates, almonds, filberts, Macadamia nuts, walnuts, and pistachios (beginning 1977). 3/ Calculated by multiplying total bearing area by the percentage of utilized production for processing.

Source: (37, 17 (July 1986), 18 (Nov. 1986)).

region over the past 15 years.[8] While North Central production was fairly stable during 1970-85, the West grew steadily in area harvested, production, and value, production in the Northeast declined, and the South remained a relatively minor production area for processing vegetables (figs. 2 and 3).

North Central Region

The North Central region, particularly Wisconsin, dominates in the production of green beans, sweet corn, and green peas for processing. Wisconsin's major processing vegetable is sweet corn. Area harvested in sweet corn has grown at an average annual growth rate of 1 percent since 1970. In 1985, Wisconsin grew 43 percent of the North Central region's total sweet corn production. Wisconsin is also the region's largest green bean-producing State, growing 82 percent of the region's green bean production in 1985. Green bean production in Wisconsin has grown at an average annual rate of 10 percent since 1970.

While green bean and sweet corn production increased, green pea production dropped at an average annual rate of 1 percent since 1970, reflecting declines in pea consumption.

Processing tomato production in the North Central region is concentrated in Ohio, Michigan, and Indiana. Tomatoes have been the only processing vegetable grown in Ohio, while processing tomatoes accounted for 78 percent of Michigan's output in 1985, and 95 percent of Indiana's output during the same year. Production and value of processing tomatoes has grown steadily in Ohio and Michigan over the past 16 years. However, production in Indiana has declined 5 percent per year since 1970 with little change in value.

Western Region

Production of processing vegetables in the West has grown dramatically. California dominated this region with 85 percent of all production in 1985, up from 81 percent in 1970. Concentration of processing vegetable production in California is the direct result of expanding area under irrigation and a relatively longer grower season than other processing vegetable producing regions. California now has an additional competitive advantage over most eastern and North Central growers because of the widespread adoption of new technology enabling California growers to achieve economies of size unattainable by most growers in other production regions.

California dominates U.S. production of processing tomatoes. Area harvested in processing tomatoes expanded at a rate of 3 percent per year between 1970 and 1985, stimulated by average yearly increases of 9 percent in the value of processing output and rising consumer demand for processed tomato products.

While area harvested in processing tomatoes increased, area harvested in processing green beans and sweet corn dropped at an average annual rate of 5 and 2 percent, respectively.

The other four Western processing vegetable-producing States--Washington, Oregon, Colorado, and Idaho--reduced area harvested to the four major processing vegetables over the past 16 years. Washington, with 24 percent of total area harvested in the West, reduced area on the average in both green beans (4 percent) and green peas (1 percent), though area expanded an average

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[8] See appendix table 3.

Figure 2--Processing vegetable production by region, United States, 1970-85

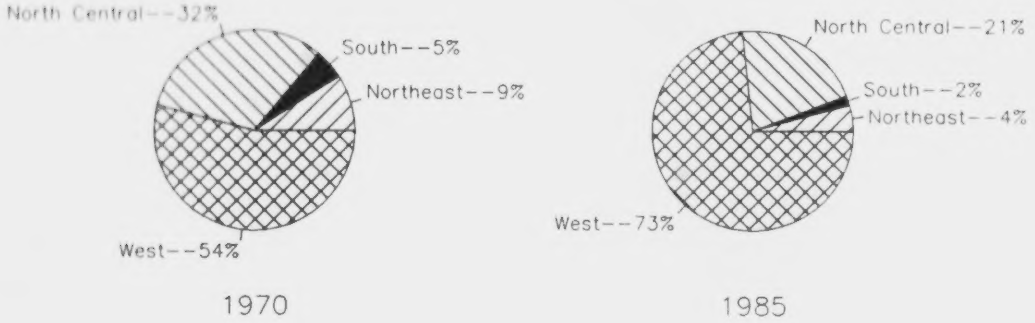
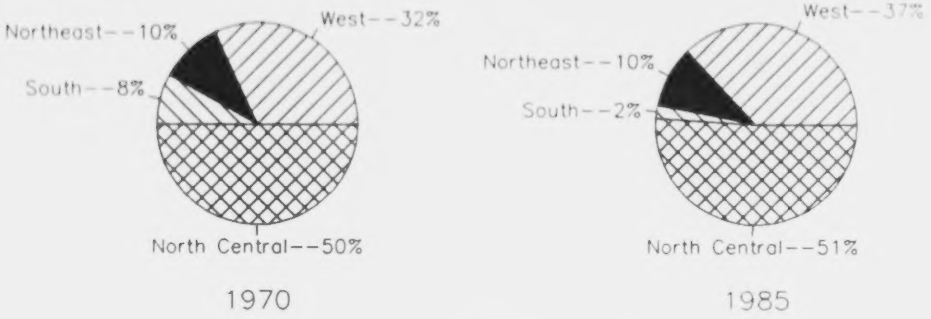


Figure 3--Processing vegetable area harvested by region, United States, 1970-85



of 2 percent per year for sweet corn. Oregon, with 23 percent of the region's processing market, followed a similar pattern. Colorado has exited the green bean market, while also reducing area in processing tomatoes at an average annual rate of 2 percent since 1970. Idaho has devoted area only to processing sweet corn production, which dropped an average of 1 percent per year over the 16-year period.

Northeast Region

The Northeast lost share of total U.S. production and value between 1970 and 1985. New York, the largest Northeastern producer of processing vegetables, accounted for 48 percent of the region's total in 1985. Most of New York's processing vegetable area was devoted to green beans in 1985. Since New York stopped harvesting tomatoes for processing in 1975, however, area harvested in sweet corn and green peas is rising.

Other States in the region harvesting processing vegetables include Delaware, New Jersey, and Pennsylvania. Delaware harvested area from all four of the major vegetables in 1970; by 1985, however, Delaware growers no longer harvested area in green beans and had reduced area in tomatoes 2 percent per year. In 1985, Delaware primarily harvested green peas and sweet corn. Harvested area of processed vegetables in New Jersey and Pennsylvania has also trended away from tomatoes toward green beans.

Southern Region

The South historically has not been a major production area for processing vegetables. In 1985, the South had only 2 percent of total U.S. production and value, down 6 percentage points from 1970.

Maryland was the most important processing vegetable-producing State in the South, accounting for 64 percent of the region's total area harvested in 1985, up from 48 percent in 1970. The increase was not due to Maryland's expansion in area, but to the disappearance of Oklahoma, Texas, Tennessee, South Carolina, and Georgia as significant producers of processing vegetables. In 1985, Maryland harvested most of its processing vegetable area in sweet corn, while no longer harvesting green beans and reducing area harvested to the other major processing vegetables.

Production and Use Trends

Production of the four major processing vegetables trended upward during the 1970's and into the 1980's. Processing vegetable production grew 2 percent per year between 1970 and 1985 to reach 10.9 million metric tons in 1985, while value of production rose 7 percent per year (table 11). Most of the growth has been in the production of vegetables for freezing. Vegetable production for freezing reached 1.6 million metric tons in 1985, growing at an average annual rate of 9 percent, almost double the annual growth in canning vegetables. In terms of value, vegetables for freezing accounted for 21 percent of the total value of processing production, up 7 percentage points from 1970. Increased output of domestic vegetables for freezing is the result of additional area allocated to the production of freezing vegetables stimulated by rising consumption and improved yields.

Area devoted to producing canning vegetables declined 9 percentage points between 1970 and 1985, with only about 69 percent of the fairly constant

Table 11--U.S. production and farm value of vegetables for processing 1/

Year	All processing		Canning		Freezing	
	Production	Value	Production	Value	Production	Value
	1,000 mt	1,000 dollars	1,000 mt	1,000 dollars	1,000 mt	1,000 dollars
1970	8,614	418,590	7,644	339,711	970	78,879
1971	9,176	453,829	8,168	371,667	1,008	82,162
1972	9,483	480,723	8,348	382,485	1,135	98,238
1973	9,839	552,935	8,583	443,202	1,256	109,733
1974	10,886	911,921	9,634	741,882	1,252	170,039
1975	12,421	991,049	11,191	831,492	1,230	159,557
1976	10,179	770,574	9,047	636,491	1,133	134,083
1977	11,650	938,172	10,317	764,709	1,333	173,463
1978	10,450	870,674	9,068	693,257	1,382	177,417
1979	11,605	1,030,578	10,165	817,512	1,440	213,067
1980	9,978	867,557	8,704	686,945	1,274	180,612
1981	9,627	910,624	8,264	713,535	1,363	197,089
1982	10,296	885,582	8,735	673,751	1,562	211,831
1983	9,441	774,213	8,152	607,330	1,289	166,883
1984	11,097	661,811	9,642	443,070	1,455	218,740
1985	10,900	1,031,000	9,271	789,768	1,629	241,232

1/ Excludes potatoes.

Source: U.S. Dept. of Agriculture, National Agricultural Statistics Service.

526,100-hectare total processing vegetable area going for canning purposes. The area for green bean, sweet corn, and sweet pea canning production shrank, while tomato area expanded about half a percent per year since 1970. Much of the production increase in processing tomatoes was attributed to growth in the fast food industry and rising demand for processed tomato products. Tomato output has grown at an annual average rate of 2 percent since 1970 and accounted for approximately 62 percent of total processing vegetable output over the 16-year period.

The product mix of green beans, green peas, and sweet corn has changed since 1970 following the increase in demand for freezing output. In 1985, sweet corn accounted for 22 percent of total processing vegetable output, up 1 percent from 1970. Most of the increase was in freezing. The share of sweet corn output for freezing doubled from 5 to 10 percent over the 16-year period, while the share used for canning fell from 16 to 13 percent as use diminished. Green bean and pea use has followed a similar pattern as sweet corn since 1970. Green beans for freezing share increased 0.5 percentage points to 2 percent in 1985, while the canning share declined from 5.0 to 4.4

percent. The share of green peas used for freezing also rose 0.5 percentage points between 1970 and 1985 to reach 2.5 percent. During the same period, canning share dropped from 3.5 to 2.6 percent.

Broccoli, carrots, and cauliflower are used for both fresh and processing, though processing is primarily for freezing. These dual use vegetables accounted for about 6 percent of all the processing vegetable output in 1985. Most broccoli, carrot, and cauliflower production has been for fresh market. Between 1970 and 1985, an average 60 percent of total broccoli, carrot, and cauliflower production went to the fresh market. However, the percentage of fresh market growth over the 16-year period differed for the three vegetables. Fresh broccoli's share of total production climbed from 31 percent in 1970 to 67 percent in 1985. Fresh cauliflower production jumped 15 percentage points to 74 percent of total production over the 16-year period. The shift in carrot use between fresh and processed was not as dramatic; the fresh market share rose by only 7 percentage points to reach 67 percent in 1985. Growth in the fresh share compared with the processing share was primarily attributable to the increased demand for fresh broccoli, carrots, and cauliflower. However, per capita use of broccoli and cauliflower for freezing grew at an average annual rate of 3 percent between 1970 and 1985.

Fruits 9/

U.S. fruit-bearing area peaked at 1.2 million hectares in 1980, due to a sharp expansion in noncitrus area. Noncitrus area has continued to increase, reaching a high of 793,201 hectares in 1985. However, because of freezes in Florida and Texas, U.S. citrus-bearing area has declined sharply since 1970, reaching a low of 361,837 hectares in 1985. With decreased citrus area counterbalanced by increased noncitrus area, total U.S. fruit-bearing area has fluctuated within a narrow range since 1970, and has increased by only 3 percent over the past 16 years. Shifts in the geographic location of processing fruit production have closely paralleled the shifts in vegetable production, particularly in the West where increasing fruit production has followed irrigation development.

Geographic Distribution of Production

U.S. fruit production is concentrated in a few States because of climatic restrictions. Approximately 88 percent of total deciduous fruit output comes from seven States: California, Hawaii, Michigan, New York, Oregon, Pennsylvania, and Washington. California leads every State in all deciduous fruit production except apples and cherries. In 1985, California produced 58 percent of total U.S. deciduous output, including all U.S. production of dates, figs, kiwifruit, nectarines, olives, and pomegranates. Apples are grown in almost every State, but Washington, New York, and Michigan are the leading producers, accounting for 54 percent of the total U.S. apple output in 1985. Grapes are commercially grown in several States, although 90 percent of total U.S. grape production is in California.

Citrus production is concentrated in only four States because citrus fruits are semi-tropical and do not tolerate freezing temperatures. Florida leads output for all citrus except lemons, producing two-thirds of the U.S. citrus

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9/ The following discussion omits the geographic distribution and supply trends for berries because U.S. production data were discontinued in 1981. However, pack data for selected berries are included in appendix tables 6 and 8.

crop in 1985. However, Florida's share has declined because of freezes that have occurred in four of the last five winters. Consequently, California's production share increased to 29 percent in 1985, while there was no commercial citrus production in Texas because of damage from the 1983 freeze. Florida still produced 70 percent of the U.S. orange output and 82 percent of the grapefruit crop in 1985. Lemons are almost exclusively commercially grown in California and Arizona. The California lemon crop accounted for 77 percent of the total domestic crop in 1985. A very small quantity of lemons is grown in Florida.

Most of the increase in bearing area for noncitrus fruit has occurred in California. Sharp increases are indicated for avocados, grapes, kiwifruit, nectarines, olives, plums, and pomegranates. Some increases are also recorded for apples, freestone peaches, and dates, while bearing area for apricots, clingstone peaches, and Bartlett pears declined significantly due to reduced consumption of canned fruit. Bearing area for apples and grapes has also increased in Washington.

U.S. citrus-bearing area peaked at 489,680 hectares during the 1973/74 production season because of large plantings in Florida after the December 1962 freeze and increased demand for FCOJ. Florida's bearing area peaked in the 1956/57 season and again in 1960/61, but was cut back by freezes following each peak. Bearing area increased steadily every year from 1962/63 and reached a record 343,747 hectares in the 1970/71 season. Since then, area declined to 230,999 hectares in 1984/85 because of recent freezes. With area reduced in Florida, total U.S. citrus-bearing area declined to 361,594 hectares in 1984/85.

Citrus-bearing area in California increased from 79,806 hectares in 1969/70 to 102,752 hectares in 1984/85. However, significant declines in bearing area have occurred since a high of 110,360 hectares in the 1974/75 season. Most of the reduction was attributed to declining area in oranges. The major decline was in southern California, due mainly to urban expansion, highway and factory constructions, and the use of land for other fruits. In contrast, because of the availability of water and lower land prices, more trees have been planted in central California. The additional planting in central California has more than offset the decrease in southern California, leaving a net increase of 5,989 hectares since 1969/70. Bearing area for both grapefruit and lemons also showed gains of 65 and 30 percent, respectively, over the 16-year period.

Texas citrus fruit area peaked at 32,699 hectares in 1968/69 and has fluctuated moderately since. Area was cut back sharply by a freeze in 1983 and dropped to only 12,343 hectares as a result. Area was also down sharply for both oranges and grapefruit between the 1969/70 and 1984/85 seasons.

In Arizona, the smallest of the four major citrus-producing States, citrus area reached a record 24,767 hectares in 1975/76, only to decline steadily to reach 15,500 hectares in 1984/85, the lowest level since 1971/72. Most of the decrease was in orange area. An all-time high of 9,915 hectares in oranges was reached in 1972/73, which subsequently trended down to 4,573 hectares in 1984/85, the lowest level since the 1963/64 season. However, Arizona grapefruit area showed a substantial growth from 2,469 hectares in 1969/70, to 2,752 hectares in 1984/85, but still remains below the record 4,371 hectares of the 1977/78 season.

Production and Use Trends

U.S. fruit yields have fluctuated widely from year to year. The greatest variations have occurred because of weather conditions. Freezing winter temperatures have a major impact on citrus fruit production, while spring frost and drought affect primarily noncitrus. Fruit yields improved significantly, with citrus up 14 percent and noncitrus up 20 percent between the 1970-72 and 1983-85 periods. The increasing trend in yields was largely attributed to new technology and improved cultural practices, including new, more effective sprays for diseases, insects, and weed control, and widespread use of irrigation and fertilization to improve productivity. More effective bee use has led to better fruit pollination thereby increasing yields, and better techniques and equipment have been developed to help protect fruit from freezing.

U.S. fruit production has increased 18 percent since the 1970-72 period due entirely to a sharp rise in noncitrus production, since citrus production fell slightly. Total noncitrus production rose 43 percent between 1970-72 and 1983-85. Among the major noncitrus fruits, grapes showed the largest growth, up 68 percent from an annual average of 2.9 million metric tons during 1970-72 to 4.9 million during 1983-85. Most of the increase was from California, which provided 90 percent of the U.S. grape crop. As demand for wine accelerated in the 1970's, heavy plantings of grape vines in California expanded the bearing area. The expansion was aided by U.S. tax policy which created development incentives for increasing area planted to grapes through special farm tax provisions. These provisions permitted income deferral and conversion of ordinary income to capital gains through cash accounting, deduction of some development costs, and capital gains treatment for business assets. As a result, California's grape production rose from 2.5 million metric tons in 1970-72 to 4.4 million in 1983-85.

Apple production rose 32 percent between 1970-72 and 1983-85, with most of the increase in Washington, Michigan, and New York. Washington, the leading producer, accounts for almost 30 percent of the U.S. apple crop. Production in Washington more than doubled from 1970-72 to 1983-85 due primarily to heavy plantings in the early 1970's. Production in Michigan and New York rose 22 and 15 percent, respectively.

Pear production fluctuated widely from 1970 to 1985, but expanded 17 percent between 1970-72 and 1983-85. California, Oregon, and Washington are the major U.S. pear-producing States. Although California is the largest producer, California output decreased slightly between 1970-72 and 1983-85, while production in Oregon and Washington rose 40 and 46 percent, respectively. Reduced consumer demand for canned pears has caused California growers to destroy Bartlett pear trees. In contrast, increased pear production in Oregon and Washington was largely the result of larger plantings of winter pear trees necessary to accommodate a strong gain in fresh pear consumption.

U.S. peach production, while fluctuating erratically, decreased 19 percent between 1970-72 and 1983-85. California growers uprooted large numbers of both clingstone and freestone peach trees in the early 1980's because of low prices. From 1970-72 to 1983-85, California clingstone production, most of which is for canning, decreased 31 percent, dropping California's share of the total U.S. peach crop from 48 to 40 percent. South Carolina is one of the leading freestone peach-producing States, but because of weather variations, production in South Carolina has fluctuated widely. In contrast, California freestone production gained 11 percent between 1970-72 and 1983-85. Overall, U.S. freestone peach production has decreased 8 percent since 1970.

U.S. citrus fruit production has decreased slightly since 1970-72, mainly due to a moderate decrease in orange production resulting from the recent freezes in Florida and Texas. During the last 16 years, U.S. orange production fluctuated from a high of 10.7 million metric tons in 1979/80 to a low of 6.1 million in 1984/85. Florida has been the leading orange-producing State since 1945/46. Florida production reached its highest level, 8.4 million metric tons, in the 1979/80 season as extensive plantings after the severe 1962 freeze came into full bearing. However, as a result of several subsequent freezes, Florida orange production fell to 4.3 million metric tons in 1984/85, the smallest crop since 1967/68.[10] Comparing the 1970-72 period with 1983-85, Florida orange output declined 14 percent and its share of the total domestic crop fell 8 percentage points to 69 percent.

Conversely, California orange production has increased substantially since the early 1970's, as the extensive shift in new plantings from southern to central California started to bear fruit heavily. California orange output increased 48 percent between 1970-72 and 1983-85. Arizona and Texas produce less than 5 percent of the U.S. orange crop, and output is trending downward.

Since 1970, U.S. grapefruit production fluctuated from a low of about 2.0 million metric tons in the 1983/84 season to a high of 2.7 million in 1976/77. However, output during 1983-85 was moderately below that during 1970-72. Because of freezes, Florida production has been relatively small since the 1982/83 season, but Florida's crop and share of U.S. production remained relatively steady between 1970-72 and 1983-85. Texas grapefruit output peaked at 554,395 tons in 1981/82, largely as a result of increased production of the Ruby Red variety which has strong export demand. The 1983 freeze sharply reduced the Texas crop to only 116,120 metric tons in 1983/84, the lowest production since the 1967/68 season.

With an upturn in bearing acreage, California-Arizona lemon production peaked at about 1.1 million metric tons in 1980/81. U.S. production rose 50 percent between 1970-72 and 1983-85. California lemon production normally accounts for almost 80 percent of the U.S. total.

Processing tonnage of all fruit has moved up sharply since 1970 due primarily to an increase in the noncitrus fruit pack. Comparing the 1970-72 period average with the 1983-85 average, total citrus tonnage used for processing fell almost 7 percent, although noncitrus fruit used for processing rose 41 percent during the same period. Since 1970, however, the proportion of total fruit sales for fresh and processing use fluctuated within a narrow range until the early 1980's, when freezes severely damaged citrus trees in Florida and Texas.

The proportion of the citrus crop used for processing dropped from 71 to 67 percent during the same period. The decrease was mainly attributed to sharply reduced Florida orange production in the 1980's. Florida has dominated the processing orange market, accounting for 90 percent of total U.S. processing tonnage because of a very large pack of FCOJ. However, there have been changes in the relative importance of processing uses for different products in Florida. The total quantity used for processing was reported down for all products. While the proportion of oranges used for FCOJ increased, oranges used for all other processed orange products declined.

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[10] The central region historically has been the primary citrus-producing area in Florida. However, the frequency of freezing winter temperatures in this region during the past 5 years has caused heavier replanting to occur further south.

The proportion of deciduous fruit used for processing remained steady at 65 percent between 1970-72 and 1983-85, but there have been shifts in the relative importance of canning, drying, freezing, crushing, and other types of processing (brined). Increased consumption of wine triggered sharp increases in grape production, which caused crushing to take a larger share of noncitrus fruit for processing. Rising consumer demand for noncitrus juice has also increased the use of apples for juice and added greatly to juice's share of total processing use of noncitrus fruit. One reason for this growth is that apple juice and sweet cider are of far better quality than only a few years ago.

In contrast, the reduced share of deciduous fruit used for canning has been associated with sharp declines in peach and pear use. While apples account for a relatively large proportion of canning, the total quantity does not show any trend. Overall, the share of deciduous fruit used for canning dropped from 31 percent in the early 1970's to 25 percent in the mid-1980's.

The quantity of deciduous fruit used for freezing has been relatively small and has fluctuated within a narrow range since 1970, but its share of total U.S. noncitrus production for freezing has declined. Pie and related bakery goods are the major outlets for frozen deciduous fruit. On the other hand, the quantity of deciduous fruit for drying, mostly raisins and prunes, increased considerably, and its share of total processing deciduous fruit production rose from 20 percent during 1970-72 to 25 percent during 1983-85.

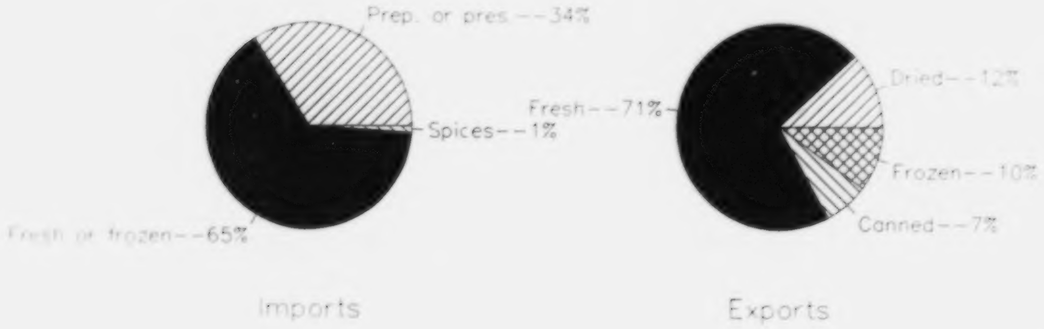
International Trade 11/

The United States became a net importer of fresh and processed fruits and vegetables during 1984. In 1983, the United States exported 3.4 million metric tons of fresh and processed fruits and vegetables (excluding citrus and other fruit juices), while importing 2.7 million. By 1984, however, U.S. imports reached 3.3 million metric tons, while exports declined to 3.1 million. U.S. exports of fresh and processed fruits and vegetables were 2.8 million metric tons and imports were 3.5 million in 1985. Of the items exported in 1985, 11.9 percent were in dried form. The majority of imported items, 34 percent, were in prepared or preserved form (fig. 4).

The trade deficit in processed fruit and vegetable products has been fueled by relatively unfavorable exchange rates with the currencies of many important U.S. trading partners. Moreover, competition between the United States and other major fruit and vegetable exporters has intensified with the emergence of the European Community (EC-12) as a net exporter of subsidized processed fruit and vegetable products. These subsidized products are more attractive on world markets than nonsubsidized U.S. exports. While the weakening dollar improved the U.S. export picture in 1986, competition in world markets remains strong.

11/ See appendix table 10 for a calendar year breakdown of import and export quantities of selected processed fruit and vegetable commodities.

Figure 4--Composition of U.S. fruit and vegetable imports, and exports 1985 1/



1/ Excludes citrus, other fruit juices

As an alternative to subsidizing U.S. produce, the Secretary of Agriculture implemented the targeted export assistance program (TEA). Administered by the Foreign Agricultural Service of the U.S. Department of Agriculture, TEA is essentially a foreign market development program for specific U.S. commodities hurt by foreign subsidies, import quotas, or other unfair trade practices. The program is intended to help maintain or expand U.S. export markets in the face of increasing world competition, and in some cases, to reverse declining export trends. By increasing exports of commodities with large domestic surpluses and depressed prices, TEA also raises domestic prices by reducing supplies, thus encouraging better returns for producers. Processed fruit and vegetable TEA programs are currently in effect for promoting canned peaches and fruit cocktail, frozen potatoes, walnuts, raisins, domestic wines, fresh and processed citrus, and pistachios to East Asian and the Pacific Rim countries; walnuts, raisins, dried prunes, domestic wines, fresh and processed citrus, and almonds to Western Europe; and raisins to Africa and the Middle East.

Although evaluation at this point is difficult because the programs are relatively new, success of TEA depends primarily on the ability of U.S. fruit and vegetable growers to provide adequate supplies of targeted commodities at competitive export prices, and secondly on the success of foreign advertising and promotion campaigns in increasing demand. Less favorable exchange rates, inadequate domestic supply for export, or a tightening of foreign import quotas could restrain short-term program results. Longer term success could also be hindered by retaliatory actions from foreign competitors.

Vegetables

The trade picture for canned vegetables deteriorated between 1970 and 1985 as U.S. imports of processed vegetables grew at an annual average rate of 6 percent relative to only a 3-percent rate for exports. Leading exporters to the United States in 1985 were Western Europe, primarily Italy and Spain, with 40 percent of U.S. processed vegetable imports, and Asia, primarily Taiwan and Thailand, with 39 percent. Leading U.S. export countries in 1985 were Western Europe, primarily the United Kingdom and Germany, with 32 percent of total processed vegetable exports, and Asia, primarily Japan and Hong Kong, with 41 percent.

Canned tomatoes, including paste and sauce, comprised 23 percent of total canned vegetable imports in 1985 and were the major canned vegetables imported (table 12). Corn was the major canned vegetable exported in 1985, accounting for 51 percent of all canned vegetable exports (table 13). As demand for canned vegetables slowed over the last 16 years, domestic production slowed more rapidly, thus allowing imports to gain a larger share of available supplies. In 1970, imports of canned vegetables (asparagus, green beans, carrots, corn, pickles, peas, and tomatoes) provided 5 percent of total U.S. supplies, while in 1985, imports accounted for 6 percent.

Despite the smaller demand for canned vegetables abroad, U.S. exports of frozen vegetables grew an average of 17 percent per year between 1970 and 1985. In 1970, frozen exports were only 16 percent of total U.S. processed vegetable exports. The share had risen to 54 percent by 1985. Corn was the primary frozen vegetable export, accounting for 28 percent of total vegetable exports in 1985. Imports of frozen vegetables were not a major portion of processed vegetable imports until 1978, when many more individual import codes were established. Between 1978 and 1985, vegetable imports nearly tripled, with cauliflower imports accounting for nearly half the total.

Japan, Hong Kong, and Australia were the leading U.S. frozen vegetable export destinations in 1985 with 78 percent of total frozen exports going to these countries. Australia's demand for U.S. frozen exports declined 38 percent between 1984 and 1985.

Fruits

Increased fruit production around the world has created keen competition for U.S. processed fruit in major world markets. Consequently, exports of U.S. canned fruit, especially peaches and fruit cocktail, have steadily declined (table 14). The EC and Canada were traditionally major markets for U.S. canned fruit. However, the EC's Common Agricultural Policy (CAP) has affected U.S. exports to West Germany and other EC importers. Since Spain entered the EC in 1986, canned fruit exports from the United States to the EC have declined further. During the 1984/85 season, exports of canned fruit such as peaches and fruit cocktail to the EC accounted for only 1-2 percent of total U.S. major canned fruit exports. Increasing noncitrus production in Western Europe and Latin America, the strong U.S. dollar in recent years, tariff and nontariff barriers imposed by foreign countries, and export subsidies in other countries have also significantly reduced U.S. processed fruit exports.

Exports of canned fruit to the Far East have increased since 1970. In 1985, exports to the East Asia and Pacific region accounted for 42 percent of total canned peach, 16 percent of total canned pear, and 36 percent of total canned

Table 12--U.S. imports of selected processed vegetable products 1/

Commodity	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
	Metric tons															
Canned:																
Beans and blackeye cowpeas	291	428	480	716	649	507	525	482	769	1,012	885	720	562	1,021	2,317	7,446
Chickpeas or garbanzos	251	158	218	234	272	199	283	174	11,357	11,068	13,007	13,362	9,646	14,470	13,062	10,207
Mushrooms	11,253	13,953	23,637	22,722	19,335	24,153	30,547	33,568	40,051	41,899	50,472	38,080	21,561	5,017	13,925	66,452
Peas	4,915	5,792	7,471	5,539	5,834	7,376	6,700	4,610	11,562	6,652	5,163	5,105	4,756	7,275	13,996	11,537
Tomatoes	58,302	49,240	71,953	45,683	29,960	31,263	33,638	32,703	33,641	20,669	18,090	44,103	34,364	84,689	105,980	99,803
Tomato paste and sauce	41,450	44,257	57,262	53,939	20,510	12,192	25,055	29,573	26,357	20,343	12,300	23,711	99,721	83,628	81,209	65,766
Total	116,462	113,829	161,021	128,832	76,560	75,690	96,748	101,111	123,737	101,643	99,917	125,081	170,610	196,100	230,489	261,211
Other prepared or preserved vegetables:																
Dried garlic and flour	142	39	66	600	696	128	391	1,163	134	302	159	194	1,745	408	196	398
Mushrooms, dried and fresh	583	447	777	516	627	499	576	697	1,324	790	976	899	537	1,341	1,232	1,096
Onions, dried (including flour)	34	26	149	78	556	45	14	19	183	26	42	104	10	16	113	61
Potatoes, dried (including flour)	266	117	303	480	562	789	79	105	712	942	351	1,350	1,010	537	1,890	1,682
Pickled vegetables	14,613	17,265	20,229	21,305	24,380	18,172	23,601	4,144	0	0	0	0	0	0	0	0
Pimentos, in brine or preserved	3,461	0	3,023	3,438	8,179	4,709	5,071	4,380	10,427	8,380	5,470	6,318	5,807	6,041	7,727	7,643
Sauerkraut	460	460	1,342	2,613	1,948	543	256	298	417	385	436	278	441	445	665	757
Total	19,559	18,355	25,889	29,029	36,950	24,886	29,989	10,807	13,197	10,825	7,434	9,143	9,550	8,788	11,823	11,637
Total canned and other	136,021	132,184	186,910	157,862	113,510	100,576	126,737	111,917	136,934	112,468	107,351	134,224	180,160	204,888	242,312	272,848

1/ Calendar year.

Source: U.S. Dept. of Agriculture, Economic Research Service.

Table 13--U.S. exports of selected processed vegetable products 1/

Commodity	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
	Metric tons															
Canned:																
Asparagus	NA	2,034	1,734	1,838	2,321	1,307	1,229	1,111	1,571	1,866	2,048	2,235	1,217	1,068	964	712
Corn	7,064	6,688	9,241	21,161	23,342	22,656	24,071	31,260	38,503	21,695	25,209	32,307	28,220	29,951	25,954	27,691
Tomatoes	8,684	7,884	9,037	11,203	12,089	11,457	13,673	10,714	12,799	18,908	7,191	6,624	4,112	2,881	2,459	3,279
Tomato paste and puree	4,533	3,085	3,702	16,688	21,923	10,059	10,892	12,971	12,089	17,388	5,227	5,052	4,642	4,928	4,361	3,230
Tomato juice	6,126	5,633	7,045	9,777	9,246	14,979	21,437	19,019	14,090	11,372	14,748	14,954	13,283	8,415	6,365	5,436
Vegetables, not elsewhere specified	8,751	6,778	7,125	8,689	12,998	12,598	17,670	19,371	14,226	15,322	17,369	21,181	19,504	13,542	11,399	10,212
Soups	7,832	7,673	9,013	12,494	11,439	10,847	12,092	13,522	16,739	15,324	14,547	12,929	12,413	11,365	11,015	9,824
Frozen	11,430	8,129	11,776	20,781	30,054	30,865	63,552	58,368	79,429	94,308	118,165	133,062	118,156	124,399	130,640	127,170
Soups, dehydrated	10,817	9,351	11,064	12,175	13,097	12,443	20,446	19,278	19,822	18,655	21,910	24,720	22,653	24,994	25,558	22,832
Other, prepared	3,852	2,670	2,865	3,950	5,296	3,848	14,249	7,875	20,436	21,660	23,765	27,862	25,739	18,775	17,324	16,386

NA = Not available.

1/ Calendar year.

Source: U.S. Dept. of Agriculture, Economic Research Service.

Table 14--U.S. exports of selected processed fruit products 1/

Fruit type	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
	Metric tons															
Dried:																
Raisins	63,885	68,514	45,817	31,886	44,963	51,748	62,625	35,514	43,901	40,953	62,790	59,801	51,519	55,534	54,824	66,498
Prunes	35,857	38,298	37,266	45,780	40,704	53,269	54,328	50,977	50,123	38,222	46,309	55,139	58,685	52,016	49,647	46,322
Other	12,569	9,285	9,795	10,807	8,293	10,756	14,223	9,524	21,045	18,334	17,028	15,481	14,497	10,890	9,887	8,386
Total	112,311	116,097	92,878	88,473	93,960	115,773	131,176	96,015	115,069	97,509	126,127	130,421	124,701	118,440	114,358	121,206
Canned:																
Fruit cocktail	49,340	34,851	42,066	49,506	42,986	37,334	36,530	42,770	43,283	46,599	53,938	50,034	39,860	30,991	21,627	16,696
Peaches	75,341	62,511	60,855	53,564	44,611	40,962	47,169	54,186	85,328	53,524	57,530	53,079	37,192	26,223	13,323	10,082
Pineapples	30,901	28,722	32,346	35,727	20,211	17,978	15,577	15,608	14,071	11,521	9,181	11,075	12,172	12,047	12,745	7,331
Other	16,332	17,723	33,006	26,286	26,623	31,784	28,458	33,007	35,757	25,750	26,802	23,247	21,497	22,166	18,680	14,812
Total	171,914	143,807	168,273	165,083	134,431	128,058	127,734	145,571	178,439	137,394	147,451	137,435	110,721	91,427	66,375	48,921
Frozen	2,335	2,781	4,777	8,761	9,745	11,180	16,737	10,023	11,874	12,918	18,403	24,339	24,337	13,042	13,836	11,571
Other, prepared and preserved 2/	9,599	10,927	12,933	14,995	14,930	16,108	16,191	20,222	22,360	20,765	19,301	26,954	20,249	20,081	17,444	20,730
Total, prepared and preserved 2/	296,159	273,613	278,861	277,311	253,066	271,118	291,839	271,831	327,742	268,586	311,282	319,150	280,009	242,990	212,013	202,428

1/ Calendar year. 2/ Excludes juice.

Source: U.S. Dept. of Commerce, Bureau of the Census.

fruit cocktail exports. The continued promotional activities in the Pacific Rim area via the TEA program partially contributed to increased exports to this area in 1986 and also helped to replace markets lost in the EC. Exports of all canned fruit in the early 1970's amounted to approximately 10 percent of the domestic pack. With exports steadily declining, the 1983-85 period average dropped to 5.6 percent.

The United States was a net exporter of FCOJ, the largest of the processed fruit products until the late 1970's. Since the mid-1970's, however, gaps between domestic supply and demand have been met by Brazil. The major importers of U.S. FCOJ are Canada, Europe, and the Far East. Canada's imports have grown rather steadily, peaking in 1981 and 1983. U.S. FCOJ exports to Europe have steadily declined, falling below the levels of the 1970's in 1984. This decline was mostly attributed to relatively unfavorable bilateral exchange rates. On the other hand, the Far East has been an area of dramatic expansion, tripling U.S. imports between 1970 and 1984. Relaxation of tight Japanese import quotas and relatively favorable exchange rates with Pacific Rim countries have aided the expansion. U.S. FCOJ exports increased throughout the 1970's, but have fluctuated widely since 1980, and reached their lowest export level of 170,884 milliliters in 1985, due to reduced Florida production (table 15). Canada, the most important U.S. export market for FCOJ, accounted for over 48 percent of U.S. exports in the 1980's, just slightly more than in the 1970's. Brazil has recently increased its share of the Canadian market because of short domestic supplies and high U.S. prices.

The quantity of U.S. domestic dried fruit exports, particularly raisins, has not changed greatly since 1970, although there were wide fluctuations from year to year. Comparing the 1970-72 period average with the average from 1983-85, dried fruit exports increased almost 9 percent. U.S. raisin exports lost some EC markets in the early 1980's because of larger South African and Australian exports to the EC. However, the demand for U.S. raisins in the EC strengthened in 1986, aided by the weakening dollar and promotional efforts through TEA. U.S. dried fruit markets abroad have also shifted. Japan has become the leading importer of U.S.-produced raisins. Consequently, raisin exports to the East Asia and Pacific region now account for 42 percent of the total. Exports of dried prunes, another major dried fruit item, increased since the early 1970's. Dried prune exports increased 33 percent from 1970-72 to 1983-85. Major importers are the EC, which accounted for 40 percent of the total, and Japan, with 19 percent of the market share.

Although the United States is the world's leading processor of canned peaches, pears, and fruit cocktail, U.S. imports of canned fruit continue to rise and account for an increasing share of shrinking U.S. consumption. Imports of most canned fruit, principally from Spain, Greece, Argentina, Italy, and South Africa, were practically negligible until the last few years. Total U.S. imports of the major canned fruits have increased from 319.7 million metric tons during 1970-72 to 551.2 million in 1983-85 (table 16). Imports of peaches, pears, and fruit cocktail were 5 percent of total U.S. supply of these canned fruits in 1983-85, up from 3 percent in 1970-72. Several factors have contributed to the recent rapid growth in imports, including increased expansion of world fruit production, third world countries' urgent need for hard currency, and several governments' subsidizing production and processing activities in major exporting countries.

FCOJ imports have been heavy to meet rising domestic demand. Thus, the United States has become a net importer of FCOJ since the late 1970's. A cost

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Table 15--U.S. exports of selected processed fruit juice products 1/

Prepared and perserved	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
								Milliliters								
Citrus juice:																
Single strength--																
Grapefruit	5,990	4,940	4,982	4,917	5,242	4,645	5,172	5,695	14,788	14,396	15,372	13,815	12,098	10,257	6,484	5,937
Orange	12,632	10,363	8,862	120,354	9,981	10,074	10,596	10,504	34,835	35,064	37,967	34,369	29,460	24,067	19,402	24,008
Mixed	763	660	701	680	582	752	645	716	8,557	7,197	7,575	6,905	10,177	6,755	6,235	13,587
Total	19,385	15,963	14,545	15,951	15,805	15,471	16,413	16,915	58,180	56,657	60,914	55,089	51,735	41,079	32,121	43,531
Concentrated frozen:																
Grapefruit	939	998	1,101	1,428	1,081	1,334	1,328	2,030	17,173	21,687	47,299	53,895	49,061	38,936	46,652	39,315
Orange	6,097	7,839	8,334	11,093	11,829	13,547	15,882	15,775	138,515	162,250	250,737	284,904	233,579	270,777	236,673	170,884
Total	7,036	8,837	9,435	12,521	12,919	14,881	17,210	17,805	155,688	183,937	298,036	338,799	282,640	309,317	283,325	210,199
								1,000 gallons								
Contracted hot pack:																
Grapefruit	368	309	275	377	278	211	319	295	4,939	4,884	6,781	7,624	5,924	5,163	5,645	5,806
Orange	1,617	1,542	1,254	1,253	1,243	979	1,432	1,638	15,490	12,971	29,074	25,417	25,352	21,141	17,247	12,976
Total	1,985	1,851	1,529	1,630	1,521	1,190	1,751	1,933	29,429	17,855	35,855	33,041	31,277	26,304	22,892	18,782
Noncitrus juice:																
Pineapple	4,031	3,533	3,144	3,461	2,787	1,707	1,530	2,145	10,643	8,989	14,190	15,499	15,795	15,405	12,656	10,794
Other	5,433	5,798	7,026	8,579	8,767	8,287	10,837	12,808	67,284	77,261	126,018	173,276	198,722	194,186	175,804	166,254
Total	9,464	9,241	10,170	12,040	11,554	9,994	12,367	14,953	77,927	86,250	140,208	188,775	214,517	209,591	188,459	177,048
Grand total	37,870	35,892	35,679	42,142	41,790	41,536	47,741	51,606	312,224	344,699	535,013	615,704	580,168	586,687	526,796	449,559

1/ Calendar year.

Source: U.S. Dept. of Agriculture, Economic Research Service.

Table 16--U.S. Imports of selected processed noncitrus fruit products 1/

Fruit type	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Fruit, prepared or preserved:							Metric tons							
Blueberries, frozen	5,035	3,825	4,600	36,129	3,615	2,152	2,747	4,455	5,154	2,025	3,086	2,569	1,997	4,126
Strawberries, frozen	49,777	38,359	38,663	51,563	53,109	44,235	22,514	43,994	44,293	50,875	37,864	27,271	1,581	19,293
Cherries, in brine	877	1,078	631	514	28	9	74	215	70	0	15	276	448	597
Cherries, o/w preserved	3,896	584	3,457	2,255	1,253	860	568	494	274	608	244	178	310	426
Dates (all)	11,001	13,534	11,839	11,310	10,642	21,173	8,712	23,439	17,041	17,194	5,792	2,909	5,858	9,484
Fig paste	5,856	5,741	6,132	2,129	8,978	4,603	6,523	5,457	6,408	7,767	7,680	4,394	4,068	3,623
Mandarin oranges, canned	34,177	37,677	36,766	41,314	44,084	32,231	33,527	34,336	40,279	28,210	35,021	35,599	29,617	36,286
Pineapple, canned	111,263	117,793	113,209	100,837	98,055	141,040	166,929	175,836	173,024	204,228	209,521	194,925	194,952	183,665
Peaches, prepared or preserved	273	402	547	793	297	95	71	43	37	254	210	227	339	3,639
Pears, prepared or preserved	3,010	10,844	4,036	689	15	23	16	34	23	20	14	15	27	63
Apricots, dried	612	551	903	1,415	2,711	763	1,971	1,818	2,380	1,878	1,503	1,754	2,983	5,131
Subtotal	22,778													
Other, prep. or pres.	968	4,158	65,141	15,092	15,873	1,058	15,053	24,130	12,888	16,099	14,541	20,763	31,617	21,710
Total	226,746	234,546	285,925	2674,040	238,659	248,244	258,705	314,250	301,872	329,159	315,492	290,881	272,889	288,045
Fruit peels (all)	11,996	942	1,071	1,631	1,441	474	767	688	820	464	691	830	1,120	1,010
Jellies, jams, marmalades, and butter	4,993	5,027	5,492	4,317	4,923	3,895	3,907	3,894	3,684	3,535	3,706	3,496	4,053	4,868
Total fruit, prepared or preserved	243,734	240,514	292,489	269,988	245,022	252,612	263,380	318,833	306,376	333,158	319,889	295,207	278,062	293,923
							1,000 liters							
Fruit juice:														
Apple	63,594	128,795	96,779	78,145	81,371	80,312	130,172	120,781	168,050	251,905	164,856	308,892	392,766	565,141
Pineapple	51,462	49,746	40,200	38,239	35,351	53,718	55,308	81,011	93,340	128,674	150,563	141,305	143,667	123,473
Citrus contrated	6,897	92,050	156,011	78,150	70,272	128,196	123,283	184,330	57,479	62,107	39,116	81,926	154,008	139,580
Other	10,883	15,830	25,930	81,772	45,815	17,159	12,545	14,366	17,829	14,116	14,812	57,473	36,224	55,129
Total	132,836	286,421	318, 921	276,306	232,808	279,386	321,308	400,488	336,697	456,802	369,347	589,595	726,664	883,324

1/ Calendar year. 2/ Single-strength basis beginning 1978.

Source: U.S. Department of Commerce, Bureau of the Census.

differential between domestic and foreign producers has contributed to the growth of imports. Consequently, imports captured 34 percent of total U.S. domestic supply of FCOJ during 1983-85, compared with only 11 percent in 1970-72. Brazil has accounted for approximately 95 percent of total U.S. FCOJ imports since 1978 and is now a major competitor in the U.S. FCOJ market. Not only are Brazilian bulk shipments of FCOJ common, but major ports of entry have shifted from Florida to the Northeast, allowing advantages in transportation cost and better access to dairy plants processing bulk FCOJ into chilled juice (9).

High retail prices for FCOJ have resulted in a shift in consumption from FCOJ to apple juice in recent years. Imports of apple juice jumped to 148,346 metric tons in 1985/86, up from about 81,725 in 1978. Most U.S. apple juice imports are from West Germany, Argentina, Australia, the Netherlands, Spain, and South Africa.

Strawberries are the principal frozen fruit import, most of them from Mexico. Mexican imports have exhibited no major trends over the last 16 years. However, the share of total U.S. frozen strawberry supply provided by imports declined from 24 percent in 1970-72 to 10 percent in 1983-85. Among the U.S. imports of dried fruit items, figs and dates are the two most important, accounting for almost all dried fruit imports. Most U.S. dried fruit imports are from Iran, Pakistan, Greece, and Turkey.

FRUIT AND VEGETABLE PROCESSING INDUSTRY STRUCTURE

U.S. fruit and vegetable processing industries provide the chief link in the domestic fruit and vegetable marketing chain. As "coordinator," the processing industries wield considerable influence on market system participants both backward and forward along the marketing chain. As the industries have grown, they have created standardized coordination systems with farm producers and retailers to reduce the risks associated with supply and demand uncertainties. However, tighter coordination between the fruit and vegetable production, processing, and marketing stages suggests that changes occurring at any level may alter organization patterns or have structural implications for other marketing system participants.

Coordination Between Fruit and Vegetable Processing Industries and Agricultural Producers

Production and processing have become increasingly interdependent as operators in both stages attempt to reduce the production risks associated with their particular activity. Larger farm sizes, more specialization, and greater capital requirements at the farm level have increased the market and financial risks incurred by fruit and vegetable producers over the years. Processors, on the other hand, are subject to risks associated with an unsure supply and quality of raw materials, at possibly infrequent delivery schedules. Contractual arrangements between growers and processors, cooperative processing firms, and grower bargaining associations are the major means growers have to reduce risk. However, the use of forward contracting, vertical integration, and processed product differentiation have encouraged industrialization, shifts in control from the production to the processing stage, and greater concentration in the subsector (28).

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Production Contracts

Processors initiated production contracts as a means to reduce risks associated with raw product supplies and quality. Through regulation of raw input quality and scheduling of deliveries, processors are better able to reduce costs and product rejects, and increase utilization of fixed plant capacity. Processors will often offer a premium price for either early or late season deliveries. Extended growing seasons have encouraged the concentration of processing fruit and vegetable production on the west coast.

Production contracts stabilize prices and returns for producers and may also provide for operating capital advances extended by the processor early in the production season. Although some price risk is reduced, growers using production contracts may not always receive the price they consider optimum because of the processors' superior bargaining power. However, as use of production contracts for processing fruits and vegetables continues to increase in the United States, growers without contracts are more and more susceptible to not finding a market for noncontracted production. Moreover, U.S. processors tend to favor growers with whom they do regular business, especially larger producers.

Production contracts are most common for procuring vegetables and citrus fruits for processing and least common for fresh market vegetables (table 17). While most vegetables for processing are produced under contract, some vegetables with both fresh market and processing uses (usually perennials such as asparagus) are seldom contracted. The percentage of contracted production of processing vegetables increased from 67 to 83 percent between 1960 and 1980. Conversely, contracted vegetable production for fresh market declined 2 percentage points to only 18 percent in 1980. Contracting for citrus and other fruits and tree nuts is also becoming more widespread and indications are that this procurement practice will continue to increase in prominence.

Vertical Integration

Vertical integration, usually associated with larger growers, assures market outlets for production, thus eliminating market access risks, guarantees supply at the processing level, and helps to ensure input quality. Combining the production and marketing stages may also reduce income variation and transaction costs (24). Vertical integration in the production and marketing stages for fruits and vegetables is slowly increasing, especially in the production and marketing of citrus fruits (table 17).

In 1980, 35 percent of total citrus production was marketed through vertically integrated firms, up from 20 percent in 1960. While data are sketchy, a 1979 study at the University of Florida indicated that an estimated 10 percent of the processing capacity in Florida was owned by vertically integrated family operations holding substantial citrus acreage in 1979. Further, integration from the processor back to large citrus holdings was also present, but estimates of the extent were not available (41). The incidence of vertical integration in various ownership forms will probably continue to increase for selected processing fruits and vegetables, especially those carrying the largest amount of production risk. For example, as Florida producers replant citrus after the recent freezes which destroyed many small growers, vertical integration will likely increase with larger growers in production. It is doubtful, however, that the increase will be rapid for most processing fruits and vegetables unless major disturbances in market coordination occur.

Table 17—Percentage of fruits and vegetables produced under contracts and by vertically integrated firms

Commodity type	Production and marketing contracts 1/			Vertical integration 2/		
	1960	1970	1980	1960	1970	1980
	Percent					
Vegetables for fresh market	20	21	18	25	30	35
Vegetables for processing	67	85	83	8	10	15
Potatoes	40	45	60	30	25	35
Citrus fruit	60	55	65	20	30	35
Other fruits and tree nuts	20	20	35	15	20	25

1/ The vertical coordination of fruit and vegetable production and marketing activities under contracts between growers, processors, dealers, cooperatives or others. 2/ Production and marketing by the same firm.

Source: (24, p. 15).

Processing Cooperatives

Most vertical integration in fruits and vegetables for processing in the United States has been from the farm level forward. Similar to production contracting and bargaining associations, producer-owned processing cooperatives evolved from the necessity of developing new organizations to handle increasing farm specialization, expand the limited market outlets for processing fruits and vegetables, and alleviate the large capital investments necessary at both the production and processing stages.

While the number of cooperatives involved in canning fruits and vegetables as their primary activity remained steady between 1978 and 1982, the number of those involved in freezing increased and those in drying activities decreased (table 18). In fruit and vegetable canning, the number of cooperative plant entries into the industry offset the number of exits by one between 1978 and 1982, and 58 were operating in both years. Most of the growth in cooperative-owned canning plants has been on the west coast. This is particularly true in California and Washington, where processing fruit and vegetable production has increased and extended production seasons permit better utilization of plant capacities, lowering production costs relative to

Table 18--Exits and entries of U.S. fruit and vegetable processing cooperatives, selected years

Process	Number of cooperative plants				
	Operating in 1978	Exits	Entries	Operating in 1982	Operating in both 1978 and 1982
			Number		
Canning	65	11	12	66	58
Freezing	12	3	4	16	11
Drying	7	2	1	6	4

Source: U.S. Small Business Administration. From the "United States Establishment and Enterprise" file developed from Dunn and Bradstreet data. Compiled with the cooperation of the Agricultural Cooperative Service, U.S. Dept. of Agriculture.

other regions. Most canning cooperatives in California are involved heavily in canning tomatoes and tomato products as well as other selected vegetables and fruits, while those in Washington primarily can apples, apple products, and sweet cherries. Although the U.S. demand for many canned fruit and vegetable products has declined, the demand for tomato and apple products remains heavy.

The number of cooperatives engaging in fruit and vegetable freezing activities continues to grow; 69 percent of all freezing cooperatives operating in 1982 were operating in 1978. Most freezing cooperatives are located in Florida, Oregon, and California. In 1982, the Florida freezing cooperatives processed primarily frozen citrus juice concentrates, while those in Oregon and California processed largely frozen fruits and berries. Most freezing-cooperative growth was in Florida citrus between 1978 and 1982.

The number of cooperative plant exits offset the number of entries in the fruit and vegetable drying industries by one between 1978 and 1982. Four plants remained in operation during both years. Both recorded exits were in California, where cooperative plants process primarily dried fruits. This is not to say that the industry is shrinking since demand for dried fruits continues to be heavy, but rather that cooperatives engaged in drying fruits are large and highly concentrated. Mergers in recent years between a number of smaller California drying-cooperatives to create larger "marketing agencies" have been common.

Joint ventures among cooperative partners are also becoming more common. Joint ventures usually help cooperatives extend their marketing area and boost market share while minimizing marketing costs. One example involves a large west coast cooperative processing, packing, and shipping cranberries for an eastern cooperative to markets on the west coast, while the eastern cooperative handles the product of the western cooperative in eastern markets.

Bargaining Associations

U.S. bargaining associations provide growers with a means of undertaking collective action in the contract negotiation process with processors. The associations negotiate regional and statewide contracts on behalf of grower members. In addition to negotiating the setting of acceptable price levels, bargaining associations protect producers from unfair contract provisions imposed by processors. Most are also involved in grading, promotion, and research activities.

Bargaining associations have entered a period of little or no growth. A 1984 study identified 29 associations involved in fruit and vegetable contract negotiations for the 1982 crop season, down 1 from 1978 (33). Most of the associations negotiated fruit or vegetable contracts exclusively; 16 were vegetable associations, 10 were fruit, and only 3 negotiated both types of contracts. About 62 percent of these associations were located in the Pacific Coast States.

Since 1954, a total of 10 fruits and 21 different vegetables were handled by bargaining associations (33). In 1982, fruit contracts most commonly handled included grapes, pears, peaches, and cherries. Potatoes, beans, peas, and corn were the predominant vegetable contracts handled. The value of farm products negotiated was $725 million in 1982, down 37 percent (constant dollars 1982) from 1978.

Membership in bargaining associations declined from 15,723 members in 1978 to 12,775 in 1982 (33). The decline may reflect the trend toward fewer and larger producers and buyers. As larger fruit and vegetable producers improve their bargaining positions, the percentage using bargaining associations will continue to decrease. To help attract new members, many associations have diversified the services provided to members to include more advertising and government lobbying activities.

Marketing Orders and Agreements

Marketing orders and agreements represent a partnership between industry and government to provide mechanisms through which fruit and vegetable growers can collectively solve marketing problems. Both marketing orders and agreements can be developed under State or Federal legislation to regulate handlers of fruits and vegetables. Producers are usually the motivating force behind a proposed order. Before a new order is issued, or an existing order is amended, continued, or terminated, growers are provided the opportunity to vote for or against the action in a referendum. Although a State government or the Federal government through the Secretary of Agriculture issues regulations and provides for enforcement, producers remain active in the administration. While marketing orders are binding on all handlers of a regulated commodity within designated areas, marketing agreements regulate only those handlers who sign the agreement.

State programs place primary emphasis on quality standards and promotional activity. The principal types of activities authorized under Federal marketing order and agreement programs include:

- Regulation of quality, size, and/or maturity.

- Standardization of containers or packs (size, capacity, weight, dimensions, or pack of the containers).

- Regulation of quantity marketed (by producer allotments, market allocation, reserve pools or, during a limited portion of a marketing season, shipping holidays, or weekly volume regulations).

- Collection and dissemination of marketing information (prices, volumes).

Most established marketing orders and agreements pertain to fresh market perishable commodities. However, all major dried fruits are covered by Federal marketing orders as are California walnuts and almonds, Oregon and Washington filberts, and spearmint oil produced in the Far West. For 13 commodities, domestic quality, size, and maturity requirements also apply to imports.

Industry Structure and Activity

In terms of product use, the U.S. fruit and vegetable processing subsector has grown at an average annual rate of about 4.8 percent since 1970. However, growth within the product industries has not been homogeneous, reflecting industry responses to changing consumption and consumer demand patterns. The value of production of all processed fruit and vegetable products has risen steadily since 1967, with canned fruits and vegetables showing the sharpest rise in value (fig 5).

Industry Growth

Growth in the canned fruit and vegetable industries declined at an average rate of 0.6 percent per year between 1970 and 1982 (table 19).[12] Although variable from year to year, the only canned products that exhibited positive average annual growth rates between 1970 and 1982 were canned vegetables and fruit juices at about 0.4 percent, respectively. The overall growth in canned vegetables over the 13-year period was largely the result of increasing use of canned tomato and tomato products in the United States and export demand for selected products such as canned corn during some years. While the data series for fruit juices is inconsistent after 1982, growth in later years was attributable to increasing use of aseptic packaged fruit juices. Aseptic packaged fruit juices are offered in more varieties that are better tasting and more convenient than the traditional canned juices.

Increasing total U.S. consumption and heavy export demand for some frozen fruits and vegetables is reflected in the industry's growth rate.[13] Although

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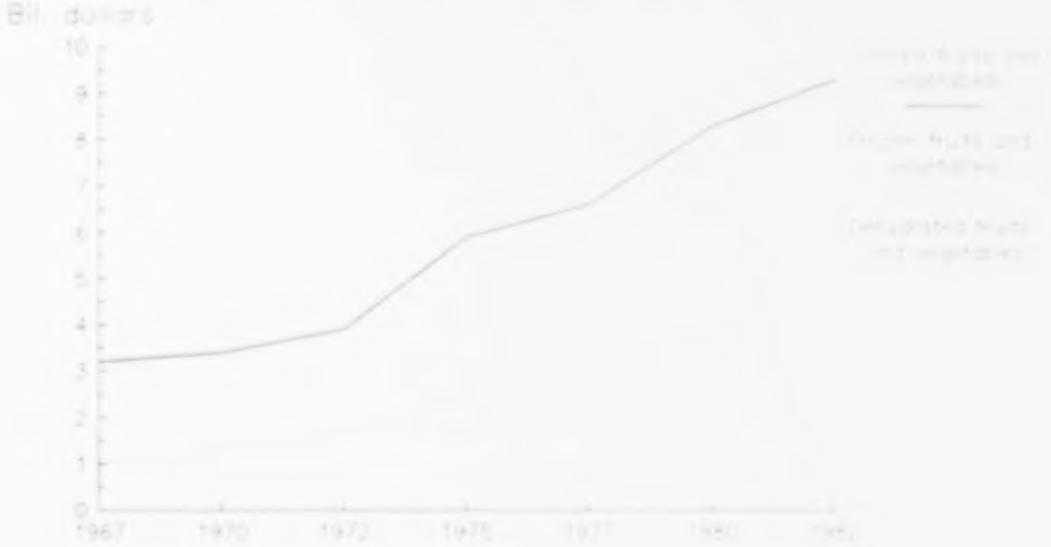
[12] Data for 1983 and 1984 are not comparable with previous years in table 19 because of a significant reduction in the availability of data necessary to maintain consistency in the time series after 1982. Changes in domestic pack of selected canned fruits, fruit juices, and vegetables are in appendix tables 4, 6, and 7.

[13] Changes in domestic pack of selected frozen fruits, fruit juices, and vegetables are in appendix tables 5, 8, and 9.

Figure 5--Processed fruits and vegetable: Value of production, United States



Source: See table 22

the industry experienced no growth in terms of total use during 1985, the use of frozen products rose at an average annual rate of almost 3.8 percent between 1970 and 1984 (table 20). Most of the growth was in frozen potato products and citrus juice, at average annual rates of 4.8 and 4.6 percent, respectively. Heavy domestic consumption and export demand offer the potential for continuing growth in U.S. frozen potato products. The average annual growth in frozen vegetables and noncitrus juices has also been positive between 1970 and 1984.

Growth from year to year in the dried fruit industry has been highly variable, but increased almost annually since 1977, partially due to rising domestic raisin consumption (table 21). However, heavy export demand for dried fruit has helped to expand the industry as well, and the TEA program currently in effect for dried fruits offers the potential for even more expansion. Growth in the dried herb and spice industries has risen at an average annual rate of 3.9 percent since 1970. Although data are not available, domestic consumption of both dried and fresh herbs and spices may have grown in recent years because of health concerns over excess salt consumption. Today, more consumers are replacing salt with herbs and spices for flavor. The growing ethnic population has also contributed to increased domestic consumption, and growing interest in ethnic cooking has boosted the variety of herbs and spices available in U.S. markets.

Marketing Bill for Processed Fruits and Vegetables

The marketing bill for processed fruits and vegetables consists of the costs of all marketing services, the farm value, processing, transportation, Table 19--Growth in U.S. fruit and vegetable canning industries as measured by total annual use

Year	Vegetables 1/	Growth	Fruits	Growth	Fruit juices 2/	Growth	Chilled citrus fruits and juices 3/	Growth	Total canned	Growth
	1,000 mt	Percent	1,000 mt	Percent	1,000 mt	Percent	1,000 mt	Percent	1,000 mt	Percent
1970	4,948	----	2,392	----	1,535	----	464	----	9,339	----
1971	5,151	3.9	2,278	-4.8	1,600	4.2	474	2.2	9,508	1.8
1972	5,286	2.6	2,273	-.2	1,506	-5.9	513	8.2	9,578	.8
1973	5,591	5.8	2,262	-.5	1,630	8.2	527	2.7	10,010	4.5
1974	5,563	-.5	1,998	-11.7	1,423	-12.7	524	-.6	9,508	-5.0
1975	5,448	-2.1	1,976	-1.1	1,582	11.2	570	8.8	9,576	.7
1976	5,577	2.4	1,955	-1.1	1,600	1.1	625	9.6	8,757	1.9
1977	5,655	1.4	2,028	3.7	1,530	-4.4	583	-6.7	9,796	.4
1978	5,642	-.2	1,979	-2.4	1,803	17.8	628	7.7	10,052	2.6
1979	5,824	3.2	1,947	-1.6	1,850	2.6	570	-9.2	10,191	1.4
1980	5,384	-7.6	1,948	0	1,888	2.1	618	8.4	9,838	-3.5
1981	5,151	-4.3	1,835	-5.8	2,150	13.9	445	-28.0	9,581	-2.6
1982	5,198	.9	5/ 1,466	-20.0	1,609	-25.2	381	-14.4	8,654	-9.7
1983 4/	5,106	-1.8	5/ 1,449	-1.2	6/ 996	-38.1	446	17.1	7,997	-7.6
1984 4/	3,730	-26.9	5/ 1,009	-30.4	6/ 694	-30.3	NA	----	5,433	-32.1

---- = Not applicable.

1/ Includes asparagus, lima beans, snap beans, beets, carrots, corn, peas, pickles, pimentos, potatoes, pumpkin and squash, sauerkraut, spinach, sweet potatoes, tomatoes, tomato and combination vegetable juice containing 79 percent or more tomato juice, tomato pulp, catsup, paste, sauce, and chili sauce, and other greens. 2/ Citrus juices are on a pack-year basis beginning October or November prior to the year indicated. 3/ Includes chilled orange and grapefruit sections, citrus salad, and orange and grapefruit juice produced commercially from fresh fruit in Florida. 4/ Not comparable to previous years due to lack of data for specific items. 5/ Excludes sliced cling peaches starting in 1981, pineapples starting in 1982, and apples and sauce starting in 1984. 6/ Excludes apple juice because of lack of data.

Source: Compiled from "Food Consumption, Prices, and Expenditures, 1964-84," U.S. Dept. of Agriculture, Economic Research Service, Dec. 1985.

Table 20--Growth in the U.S. fruit and vegetable freezing industries as measured by total annual use

Year	Vegetables 1/	Growth	Potato products	Growth	Citrus juice	Growth	Noncitrus juice	Growth	Total frozen 2/	Growth
	1,000 mt	Percent	1,000 mt	Percent	1,000 mt	Percent	1,000 mt	Percent	1,000 mt	Percent
1970	917	----	1,080	----	650	----	314	----	2,961	----
1971	925	.9	1,141	5.6	764	17.5	351	11.8	3,181	7.4
1972	960	3.8	1,168	2.4	880	15.2	352	.3	3,360	5.6
1973	1,036	7.9	1,279	9.5	886	.7	347	-1.4	3,548	5.6
1974	1,001	-3.4	1,289	.8	963	8.7	278	-19.9	3,531	-.5
1975	956	-4.5	1,366	6.0	1,138	18.2	326	17.3	3,786	7.2
1976	1,035	8.3	1,482	8.5	1,129	-.8	321	-1.5	3,967	4.8
1977	1,052	1.6	1,607	8.4	1,184	4.9	329	2.5	4,172	5.2
1978	1,122	6.7	1,772	10.3	1,002	-15.4	342	4.0	4,238	1.6
1979	1,172	4.5	1,847	4.2	1,090	8.8	294	-14.0	4,403	3.9
1980	1,143	-2.5	1,790	-3.1	1,172	7.5	334	13.6	4,439	.8
1981	1,237	8.2	1,947	8.8	1,138	-2.9	326	-2.4	4,648	4.7
1982	1,173	-5.2	1,960	.7	1,275	12.0	335	2.8	4,743	2.0
1983	1,217	3.8	2,055	4.8	1,409	10.5	324	-3.3	5,005	5.5
1984	1,324	8.8	2,116	3.0	1,230	-12.7	337	4.0	5,007	0

---- = Not applicable.

1/ Includes asparagus, snap beans, lima beans, broccoli, brussel sprouts, carrots, cauliflower, corn (cut equivalent), kale okra, blackeyed peas, green peas, rhubarb, spinach, pumpkin, squash, turnip greens, and miscellaneous vegetables including sweet potatoes, but excluding potato potatoes. 2/ Commercial production. Excludes juice frozen by industrial users such as hotels, bakeries, and confectioners.

Source: Compiled from "Food Consumption, Prices, and Expenditures, 1964-84," U.S. Dept. of Agriculture, Economic Research Service, Dec. 1985.

Table 21--Growth in the U.S. dried fruit and herb and spice industries as measured by total annual use

Year	Dried fruits 1/	Growth	Herbs and spices 2/	Growth	Total dried	Growth
	1,000 mt	Percent	1,000 mt	Percent	1,000 mt	Percent
1970	406	----	132	----	538	----
1971	369	-9.1	141	5.8	510	-5.2
1972	254	-31.2	153	8.5	407	-20.2
1973	352	38.6	144	-5.9	496	21.9
1974	332	-5.7	160	11.1	492	-.8
1975	427	28.6	136	-15.0	563	14.4
1976	351	-17.8	159	16.9	510	-9.4
1977	370	5.4	152	-4.4	522	2.4
1978	370	0	169	11.2	539	3.3
1979	379	2.4	173	2.4	552	2.4
1980	378	-.3	184	6.4	562	1.8
1981	406	7.4	201	9.2	607	8.0
1982	424	4.4	177	-11.9	601	-1.0
1983	470	10.8	209	18.1	679	13.0
1984	447	-4.9	229	9.6	676	.4

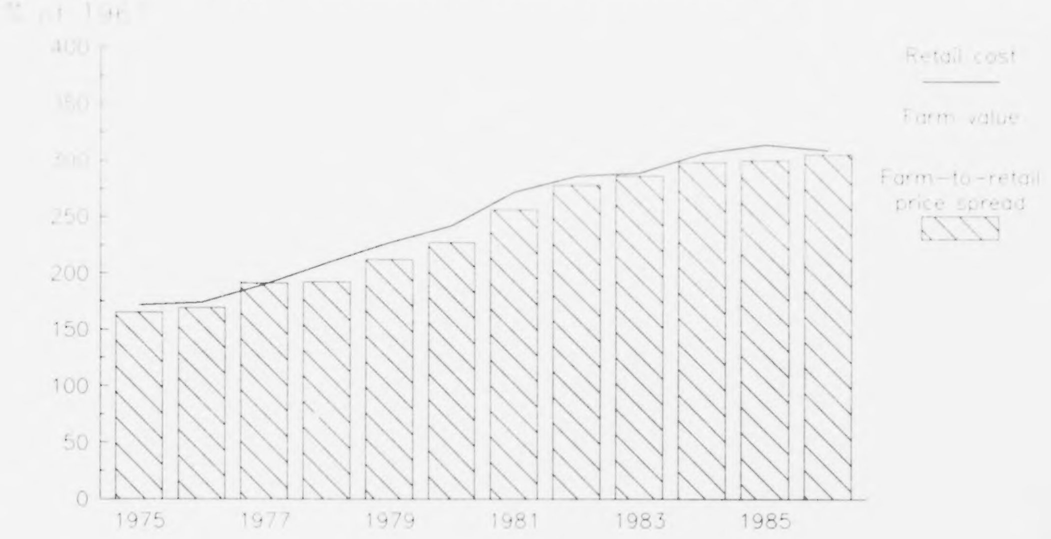
---- = Not applicable.

1/ Includes apples, apricots, dates, figs, peaches, pears, prunes, raisins, currants, and other dried grapes. Excludes unmerchantable figs and substandard prunes. 2/ Includes mustard seed, dried chili peppers, anise seed, capsicum, caraway seed, cassia, celery seed, cinnamon, cloves, corriander seed, cummin seed, fennel seed, ginger root, mace, nutmeg, paprika, white and black pepper, allspice, poppy seed, sage, sesame seed, tumeric, vanilla beans, cardamom seeds, curry and curry powder products, fenugreek seeds, bay leaves, marjoram, origanum, thyme, basil, capers, dill, mint, parsley, rosemary, savory, mixed spices, other spices, and spice seeds.

Source: Compiled from "Food Consumption, Prices, and Expenditures, 1964-1984," U.S. Dept. of Agriculture, Economic Research Service, Dec. 1985.

wholesaling, and retailing costs. The marketing bill reflects changes in the volume of food marketed, changes in services provided, and the costs of these services. Changes in a market basket of processed fruits and vegetables are shown in figure 6, illustrated by the index of retail cost, farm value, and the farm-to-retail price spread. Retail prices for processed fruits and vegetables in the United States have increased only moderately since 1983. Although farm value for processing fruits and vegetables rose dramatically between 1983 and 1985 because of relatively short supply of several processing fruit and vegetable commodities, the relative stability of the farm-to-retail price spread has helped dampen the effect on retail price. This suggests that increases in aggregate production and marketing costs for U.S. fruit and

Figure 6--Index of retail costs, farm value and price spread for processed fruit and vegetables, United States 1/



1/ 1967=100. Includes processed potatoes
Source: (16)

vegetable processors and retailers, such as wages and salaries of workers, packaging, and transportation, have moderated in recent years (16). The leveling off of retail price increases has encouraged consumption and aggregate growth in the industries.

Processing Firm Numbers and Geographic Location

The total number of U.S. establishments processing fruits and vegetables declined between 1977 and 1982 (table 22). In 1977, 1,344 establishments, employing 143,800 employees, and accounting for $11.1 billion in value of production, were in operation. However, by 1982, only 1,130 establishments were in operation.

Consistent with declining total consumption and growth, most of the drop in firm numbers between 1978 and 1982 was in the canned fruit and vegetable industries. The industries lost 185 primary establishments and 12,100 employees during the 4-year period. The only increase in canning firm numbers and employment between 1977 and 1982 was in firms producing catsup and other tomato sauces. Firm numbers and employment also slightly increased in the freezing industries, especially for processing frozen vegetables, while the dried and dehydrated fruit and vegetable industries declined in both respects.

Fruit and vegetable processing plants are concentrated on the west coast and to a lesser degree in the Northeast and East North Central regions, all in primary production regions (table 23). Close proximity of processing plants to concentrated production areas has resulted in improvements in production, transportation, and marketing facilities (28).

Table 22--Selected fruit and vegetable processing industry statistics, United States, 1977 and 1982

Industry and product class	Number of establishments with product class primary		Number of employees		Value of production		New capital expenditures for plant and equipment		Primary product specialization ratio 1/	
	1982	1977	1982	1977	1982	1977	1982	1977	1982	1977
	Thousands				Million dollars				Percent	
Canned items:	715	900	70.5	82.6	9,283.4	6,666.5	264.1	147.1	89	90
Fruits	77	96	17.8	21.6	1,756.3	1,464.7	54.2	25.2	NA	NA
Vegetables	174	227	20.5	28.9	1,849.7	1,604.2	58.2	34.0	NA	NA
Hominy and mushrooms	10	17	0.8	1.8	130.2	152.7	1.0	2.6	NA	NA
Vegetable juices	3	9	2/	1.0	2/	74.6	2/	1.9	NA	NA
Catsup and other tomato sauces and pastes, etc.	69	67	14.3	13.0	2,429.0	1,512.8	72.9	41.9	NA	NA
Jams, jellies, and preserves	27	32	3.1	3.1	673.4	427.6	9.5	5.8	NA	NA
Canned fruits juices, nectars, and concentrates	59	71	6.7	8.9	1,446.9	1,118.2	49.6	23.8	NA	NA
Fresh fruit juices and nectars (single strength)	21	NA	3.2	NA	570.5	NA	12.2	NA	NA	NA
Frozen items:	264	260	47.7	46.8	5,374.6	3,297.5	235.7	87.7	93	89
Fruits, juices, ades, drinks, and cocktails	76	76	9.7	10.2	2,150.4	1,409.0	69.6	30.2	NA	NA
Vegetables	121	110	36.9	35.1	3,111.2	1,793.5	161.2	55.3	NA	NA
Dried and dehydrated items:	151	184	13.6	14.4	1,745.1	1,142.4	51.7	52.5	94	94
Fruits and vegetables	58	74	10.7	11.0	1,341.8	884.7	45.7	46.2	NA	NA
Soup mixes	15	15	1.7	1.7	303.6	170.9	3.8	2.6	NA	NA

NA = Not available.

1/ Represents the ratio of primary product shipments to total product shipments, both primary and secondary, for establishments classified within the industry. 2/ Withheld to avoid disclosing data for individual companies.

Source: Bureau of the Census, "Census of Manufactures," 1977 and 1982.

Table 23--Fruit and vegetable processing plant distribution by region, United States, 1982

Region 1/	Canning			Freezing			Dehydrated		
	Number of plants	Percent of total	Change in plants since 1976	Number of plants	Percent of total	Change in plants since 1976	Number of plants	Percent of total	Change in plants since 1976
	Number	----Percent----		Number	----Percent----		Number	----Percent----	
South Atlantic	48	10.17	-27.0	32	16.84	3.2	5	5.49	66.7
Northeast	102	21.61	-12.8	38	20.00	-20.8	8	8.79	-20.0
East North Central	116	24.58	-17.7	20	10.53	-43.4	13	14.29	160.0
West North Central	20	4.24	0	9	4.74	-30.8	3	3.30	-50.0
East South Central	10	2.12	25.0	3	1.58	-40.0	1	1.10	0
West South Central	37	7.84	-14.0	8	4.21	-38.5	4	4.40	0
Mountain	13	2.75	30.0	10	5.26	-23.0	10	10.99	-9.0
Pacific	126	26.69	-7.4	70	36.84	-13.6	47	51.65	14.6
Total	472	100.00	-12.8	190	100.00	-21.5	91	100.00	12.3

1/ South Atlantic region includes Florida, Georgia, South Carolina, North Carolina, Virginia, and West Virginia; Northeast region includes Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Maryland, and Delaware; East North Central region includes Illinois, Indiana, Michigan, Ohio, and Wisconsin; West North Central region includes North Dakota, South Dakota, Nebraska, Kansas, Missouri, Iowa, and Minnesota; East South Central region includes Mississippi, Alabama, Kentucky, and Tennessee; West South Central region includes Arkansas, Louisiana, Oklahoma, and Texas; Mountain region includes Arizona, Colorado, Idaho, Montana, New Mexico, Nevada, Utah, and Wyoming; and Pacific region includes California, Oregon, and Washington.

Source: U.S. Small Business Administration. From the "United States Establishment and Enterprise" file developed from Dun and Bradstreet data.

The number of canning and freezing plants on the west coast declined 12.8 percent between 1976 and 1982. The decline was partially induced by the entry of newer, larger, and more efficient plants which were able to capture an expanding share of the market and force older, smaller, and less efficient plants to close. Many of the new plants were owned by large, multiplant food processing firms who were able to expand and hold market share through extensive advertising and promotion activities (28).

Industry Concentration

Concentration ratios measure the competitive conditions within markets. The four-firm concentration ratio (CR4), which gives the percentage of total output or sales in a market accounted for by the four largest firms within a defined market area, is the most commonly used measure. It is generally accepted that industries with a CR4 greater than 50 percent are highly concentrated and little or no competition exists. Conversely, industries with a CR4 less than or equal to 40 percent are defined as unconcentrated and effectively competitive.

Concentration in the fruit and vegetable processing subsector varies by industry.[14] While concentration at the four-firm level in the fruit and vegetable canning industries remained relatively stable between 1977 and 1982, the fruit and vegetable freezing industries became relatively more concentrated between the 2 years (table 24). The largest four canners produced 21 percent of all industry output in 1982, down only 1 percent from 1977. Conversely, the percentage of output produced by the four largest freezing and drying firms reached 27 and 42 percent, respectively, in 1982, an increase of 5 percentage points from that in 1977 for both industries.

An examination of the ratios in table 24 shows all three of the product industries were competitive at the four-firm level in 1982 and in previous years, but became less competitive as the number of firms considered increased. Little or no change occurred in the concentration ratio for the 50 largest firms (CR50) in the canning and freezing industries between 1977 and 1982. However, the percentage of total industry output accounted for by the 50 largest drying firms increased 3 percentage points to reach 97 percent in 1982. This suggests that U.S. fruit and vegetable drying plants are growing larger in scale. The higher concentration ratios in the fruit and vegetable drying industries relative to the canning and freezing industries reflect the smaller number of firms engaged in this activity.

Concentration within each industry also varies by product class. In the fruit and vegetable canning industries, competition between firms producing canned hominy and mushrooms and vegetable juices is much less than in other canned fruit and vegetable classes, and concentration within these two product classes is rising (table 25). In 1982, the four largest canned hominy and mushroom firms accounted for 69 percent of the total value of U.S. canned hominy and mushroom production, up 12 percent from 1977. Similarly, the value share of the four largest canned vegetable juice firms accounted for 73 percent of total industry value in 1982, up 6 percentage points from that in 1977. Higher concentration in the production of these two product classes, however, may be due in part to the relatively limited production areas in

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[14] Concentration in this report is measured on a national basis. Firm concentration may also vary between regions. However, concentration ratios for the fruit and vegetable industries were not available by region.

Table 24--Concentration of output in U.S. fruit and vegetable processing industries, selected census years 1/

Percentage of value of production accounted for by:	1967	1970	1972	1977	1982
			Percent		
Canning industries: 2/					
4 largest companies	22	21	20	22	21
8 largest companies	34	33	31	35	35
20 largest companies	52	NA	53	55	54
50 largest companies	70	NA	71	75	74
Freezing industries: 3/					
4 largest companies	24	26	29	22	27
8 largest companies	36	NA	43	40	42
20 largest companies	55	NA	69	65	63
50 largest companies	74	NA	91	86	86
Drying industries: 4/					
4 largest industries	32	33	33	37	42
8 largest industries	50	52	51	53	59
20 largest industries	75	NA	76	77	84
50 largest industries	96	NA	94	94	97

NA = Not available.

1/ Includes the value of production of primary and secondary products made and miscellaneous receipts. Primary product specialization in the canning industries was 87 percent in 1982, 89 percent in 1977, 94 percent in 1972, and 93 percent in 1967; freezing industries-- 93 percent in 1982, 89 percent in 1977, 86 percent in 1972, and 92 percent in 1967; drying industries— 94 percent in 1982 and 1977, 95 percent in 1972, and 94 percent in 1967. Data were unavailable in 1970. 2/ Based on the SIC classifications for canned fruits, vegetables, hominy and mushrooms, vegetables and fruit juices, nectars and concentrates, catsup and other tomato sauces, pastes, and jams, jellies, and preserves. 3/ Based on the SIC classifications for frozen vegetables and fruits, juices, ades, drinks, and cocktails. 4/ Based on the SIC classifications for dried and dehydrated fruits and vegetables, and packaged soup mixes from dehydrated ingredients.

Source: Bureau of the Census, "Concentration Ratios in Manufacturing, 1982."

Table 25--Share of value of production accounted for by the 4, 8, 20, and 50 largest U.S. canned fruit and vegetable companies, selected census years

Product class and the percentage of value of production accounted for by:	1967	1970	1972	1977	1982
			Percent		
Canned fruits:					
4 largest companies	34	NA	35	37	44
8 largest companies	51	NA	50	51	57
20 largest companies	75	NA	75	78	81
50 largest companies	90	NA	92	93	96
Canned vegetables:					
4 largest companies	38	NA	35	38	35
8 largest companies	46	NA	46	49	49
20 largest companies	61	NA	64	70	72
50 largest companies	78	NA	85	89	91
Canned hominy and mushrooms:					
4 largest companies	39	NA	39	53	69
8 largest companies	62	NA	57	73	87
20 largest companies	91	NA	89	96	99
50 largest companies	100	NA	100	100	100
Canned vegetable juices:					
4 largest companies					
8 largest companies	62	NA	62	67	73
20 largest companies	72	NA	76	81	82
50 largest companies	88	NA	92	95	96
	98	NA	99	100	100
Catsup and other tomato sauces, pastes:					
4 largest companies					
8 largest companies	55	NA	56	52	48
20 largest companies	68	NA	70	71	67
50 largest companies	86	NA	87	88	87
	97	NA	98	98	99
Jams, jellies, and preserves:					
4 largest companies	35	NA	40	49	47
8 largest companies	49	NA	55	63	66
20 largest companies	70	NA	79	84	90
50 largest companies	90	NA	96	98	99
Canned fruit juices, nectars, concentrates:					
4 largest companies	NA	NA	NA	NA	33
8 largest companies	NA	NA	NA	NA	49
20 largest companies	NA	NA	NA	NA	76
50 largest companies	NA	NA	NA	NA	96
Fresh fruit juices and nectars, single strength:					
4 largest companies	NA	NA	NA	NA	45
8 largest companies	NA	NA	NA	NA	56
20 largest companies	NA	NA	NA	NA	78
50 largest companies	NA	NA	NA	NA	92

NA = Not available.

Source: Bureau of Census, "Concentration Ratios in Manufacturing, 1982."

which they are produced. In the frozen fruit and vegetable product classes, firms producing frozen fruits and juices are slightly more concentrated than those freezing vegetables, while concentration in dried and dehydrated fruit and vegetable firms has steadily increased since 1967 (tables 26 and 27).

Firm concentration within product classes appears to increase with the degree of product differentiation that firms are able to portray to consumers. For example, firms producing canned vegetables are considered to be low-grade oligopolies with CR4 greater than or equal to 35 percent, but less than 50 percent (table 28). However, firms producing canned vegetable juices, ahighly advertised and differentiated canned vegetable product in the United States, are considered to be highly concentrated oligopolies. This limits competition to only a few firms and erects barriers to entry that are difficult for new firms to overcome. Moreover, the degree of competition between firms within the different processed fruit and vegetable product classes also has important implications for coordination between processors and retailers.

Product Diversification

Concentration in the fruit and vegetable processing industries is particularly high for firms marketing differentiated products. Rising concentration is attributed to trends in increasing merger activity, larger plant sizes, and growing barriers to entry for new firms (13). Barriers to entry can be reduced by acquiring existing brand names through mergers. Not only are mergers considered to be more cost effective than developing new brand names, but additional funds and resources for research and development, and new product development are more readily available (23). In 1977, the latest year for which data were available, the proportion of industry sales of canned fruits and vegetables and other processed fruit and vegetable products accounted for by firms outside the primary industry categories were 36 and 45 percent, respectively. Similarly, outward diversification by firms within the canned fruits and vegetables categories and other preserved fruit and vegetable industry categories into other lines of business was equally as prominent, 71 and 53 percent, respectively (24). These percentages have probably grown in recent years along with increased diversification of products within the industry classification as a means of reducing risks.

Product diversification in the fruit and vegetable processing industries also has implications at the farm and retail levels. Large retail firms generally prefer to deal with a few large diversified suppliers in order to reduce transactions costs. Since product diversification allows processors to spread supply risks over several products, bargaining associations at the farm level are also less effective when facing processors of a variety of products, especially those products with raw input substitution possibilities.

New Product Development and Technological Advances

The availability of funds for research and development (R&D) increases as firms grow in size or become part of other larger firms. For 1974-1976, the period for which the latest data are readily available, frozen fruit and vegetable and other preserved fruit and vegetable processors spent an average of 0.5 and 0.6 percent, respectively, of total sales on R&D activities (13). These expenditures as a percentage of sales were slightly above the 0.4 percent average for total food. The percentage of total sales used by fruit and vegetable processing firms for R&D have probably varied greatly from year to year as R&D expenditures are directly related to industry economic

Table 26--Share of value of production accounted for by the 4, 8, 20, and 50 largest U.S. frozen fruit and vegetable companies, selected census years

Product class and the percentage of value of production accounted for by:	1967	1970	1972	1977	1982
			Percent		
Frozen fruits, juices, ades, drinks, and cocktails:					
4 largest companies	30	NA	41	36	40
8 largest companies	43	NA	54	50	51
20 largest companies	68	NA	77	75	73
50 largest companies	90	NA	93	94	95
Frozen vegetables:					
4 largest companies	34	NA	35	34	36
8 largest companies	53	NA	57	56	53
20 largest companies	76	NA	82	79	78
50 largest companies	95	NA	97	97	98

NA = Not available.

Source: Bureau of the Census, "Concentration Ratios in Manufacturing, 1982."

Table 27--Share of U.S. value of production accounted for by the 4, 8, 20, and 50 largest U.S. dehydrated fruit and vegetable companies, selected census years

Product class and the percentage of value of production accounted for by:	1967	1970	1972	1977	1982
			Percent		
Dried and dehydrated fruits and vegetables:					
4 largest companies	32	NA	32	39	48
8 largest companies	50	NA	51	56	65
20 largest companies	77	NA	79	82	89
50 largest companies	97	NA	97	98	99
Dried soup mixes:					
4 largest companies	73	NA	75	78	76
8 largest companies	83	NA	86	88	91
20 largest companies	97	NA	97	98	99
50 largest companies	100	NA	100	100	100

NA = Not available.

Source: Bureau of the Census, "Concentration Ratios in Manufacturing, 1982."

Table 28--Classification of selected fruit and vegetable processing industries or product classes by degree and type of competition

Concentration class	Degree of product differentiation	
	Low	Medium
Highly concentrated oligopolies (CR4| 65 80)	----	Canned vegetable juices
Moderately concentrated oligopolies (CR4| 50 65)	----	Catsup and tomato sauces
Low-grade oligopolies (CR4| 35 50)	Canned fruits	Jams and jellies
	Canned vegetables	Frozen fruits and juices
	Pickles	
Unconcentrated (CR4 35)	Canned fruit juices	Frozen vegetables

---- = Not applicable.

Source: (13).

conditions and are often the first expenses cut in firms attempting to reduce costs. However, R&D expenditures and new product introduction are generally regarded as a key means to ensure sales growth and future profits. Product development is a mode of industry conduct associated with markets characterized by differentiated oligopoly (11).

New product development in the fruit and vegetable processing industry has largely evolved in response to changing consumption patterns and technological innovations. For example, the introduction of "lite" canned and frozen fruit and vegetable products, containing less sugar or other additives high in calories, was made in response to increasing concerns about health. The introduction of "low sodium" vegetable products was also in response to this consumer trend, as well as widespread use of "real fruit juices" in beverage combinations and the introduction of fruit and nut snacks. Moreover, consumer desire for fast, nutritious foods and increased availability of microwave ovens in American households have produced a host of microwavable individual fruit and vegetable combinations and increased consumption of frozen entrees which also include processed fruits and vegetables as side dishes or as main ingredients. Declining consumption of red meat in the United States offers the potential for even more growth in this area. Finally, the rising U.S. ethnic population and increasing interest in ethnic cooking have resulted in various ethnic frozen and canned vegetable combinations, and hold the potential for increasing varieties of processed exotic fruits and fruit juices available.

Perhaps the most important technological advances made in the U.S. fruit and vegetable processing industries today are in packaging. In addition to the packaging innovations made to accommodate microwave ovens and quick-cook and serve containers, advances in aseptic packaging may revitalize certain declining fruit and vegetable product classes and facilitate the introduction of others. Aseptic packaging in paperboard containers has already reversed the declining growth trend in fruit drink consumption by introducing consumers to a better tasting product in a more convenient package than the traditional can. According to one industry study, aseptic packaging will grow at a rate of 60 percent per year through 1987 to reach 20 billion containers by the mid-1990's (36).

While aseptic packaging offers tremendous growth potential for single-strength juices, the potential for single-strength juices, the potential also exists for packaging juice concentrates, wine, tomato sauce and paste, and other canned fruit and vegetable products. The aim is to maximize product quality, increase convenience, and reduce packaging costs. Aseptically packaged products are currently gaining in U.S. consumer and retailer acceptance because of their ease in storage and handling.

Irradiation, more of an issue for fresh fruit and vegetable handlers than fruit and vegetable processors, has recently gained U.S. regulatory approval for use but not without opposition. Irradiation has been approved for use on some fresh fruits and vegetables to prevent insect infestation and on dry or dehydrated vegetables such as herbs and spices to kill insects and bacteria (26, 27, 32). Under the current U.S. regulation, fruit and vegetable processors and retailers must label products that have been irradiated. While irradiation offers the potential for reducing costs due to waste, U.S. consumer acceptance of the process is likely to be slow.

Coordination Between Fruit and Vegetable Processing Industries and the Retailer

U.S. fruit and vegetable processors generally use three outlets for marketing processed products: retail grocery chains with their own warehouses; food wholesalers which primarily supply smaller food chains and independent retail stores; and foodservice wholesalers. With the exception of frozen potatoes, which are most often marketed to fast food establishments and other restaurant institutions, retail grocery stores remain the primary marketing channel for most processed fruit and vegetable products.15/ The largest grocery chains and food wholesalers dominate procurement (13). National market concentration and size of U.S. food retailing and wholesaling have increased gradually over the last 20 years, and processors are now dealing with a smaller number of retail buyers purchasing for larger stores. Many of these larger grocery chains operate across a widening geographical area. However, the trend in recent years has been toward more centralized purchasing of products carried throughout a particular chain (25).

All retail grocery establishments in the United States carry some amount and variety of processed fruit and vegetable products. The retailer decides which

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15/ Frozen fruit and vegetable sales are often the exception. Sales to foodservice establishments and to secondary processors who use frozen fruits and vegetables in other value-added products such as frozen entrees are more common than sales to retail grocery stores (20).

brand, what quantity, and the store location and extent of shelf space to allocate to that product. While price is certainly a factor in making the purchasing decision, nonprice factors are often important determinants.

Brand versus Private Label

Processed fruit and vegetable products are marketed as either brand or private label. Brand processed fruit and vegetable products carry the processors' identity or trade name throughout the distribution channel. Conversely, private label products are given marketing identities or names by the retail or wholesale distributor. The distinction between brand and private label has important implications for processing industry structure and advertising and promotion activities at the retail level. Firms processing brand products handle their product throughout the distribution system, while private label processors rely on the retailer to provide the resources and actions necessary to market the product.

Market shares of private label processed fruit and vegetable products increased for many canned fruits and vegetables and frozen vegetables between 1970 and 1981 (21).[16] This increase has resulted in some brand manufacturers processing private label fruit and vegetable products for retail organizations along with their own brand items. However, "dual branding" is usually undertaken only by processors of brands with low market shares or excess plant capacity as a result of declining market shares (24). Processors of heavily advertised brands generally will not pack private label or generic fruit and vegetable products because of the additional competition to their primary branded product and the possibility of eroding existing market share. Many processing fruit and vegetable cooperatives, on the other hand, are heavily involved in processing generic fruit and vegetable products or in processing products to a semifinished state because of their lack of success in developing strong brand loyalties.[17]

Successful retail sales of private label canned fruit and vegetable products has encouraged large U.S. food chains to vertically integrate into canned fruit and vegetable processing activities (table 29). While 28 percent of the 50 largest food chains were vertically integrated into the processing of canned fruits and vegetables in 1977, only 2 chains were integrated into freezing activities and 1 engaged in drying.[18] The threat of vertical integration and the fact that the cost of switching suppliers of private label products is very low are factors that allow retailers to exercise additional control over private label processors.

Since processors of private label products have little bargaining power, most terms of trade focus primarily on quality, price, and price-related factors such as storage and shipments. Gentlemen's agreements and business reputation tend to regulate retail buying (22). Conversely, brand processors, through successful development of strong brand loyalties, influence purchasing and merchandising decisions at the retail level. Brand processors often use trade deals to promote their products. Known as promotion discounts or forward buying, the practice involves lowering a product's list price to all

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[16] Most frozen vegetables sold at retail are private label (20).

[17] Noted exceptions are Sunkist, Welchs, and Ocean-Spray.

[18] Retail chains have generally integrated into the production of products with low levels of advertising (24).

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Table 29--Vertical integration into fruit and vegetable processing industries by the largest U.S. food chains, 1953-1977

Commodities	Integrated chains among 40 largest					50 largest, 1977	
	1959	1963	1967	1972	1977	Integrated	Value of shipments
	Number						Dollars
Canned fruit and vegetables	12	10	10	11	14	14	77,040
Frozen fruit and vegetables	6	10	12	2	2	2	7,552
Dehydrated fruit and vegetables	2	2	1	2	1	1	NA

NA = Not available.

Source: (24, p. 464).

competitors within a specified region for a specific time period.19/ Retailers in turn must perform specified merchandising actions such as retailer-sponsored advertising, special displays, or extending retail-price discounts to consumers in return for receiving the reduced price (24).

Diverting product outside the specified promotion region is often a problem with large chain store and wholesale buyers, so processors may limit the amount sold under the trade promotion. Moreover, forward buying plays havoc with production and shipping schedules at the processing plant. Therefore, many processors are currently experimenting with "bill and hold" systems which allow retailers to purchase large amounts of brand products at the discounted price that are not delivered until needed (39). The "bill and hold" system prevents alienation by the retailer and exemplifies the growing positive relationship between U.S. retailers and brand manufacturers.

Advertising and Promotion

Even though market share for private-label processed fruits and vegetables has increased, brand products still have the advantage. The degree of consumer impulse buying of processed fruit and vegetable products in the United States is considered very high (21). Thus, advertising and promotion activities are critical in successful sales, and processors may gain favorable attention from retailers by successfully developing a leading brand through consumer advertising and promotion.

19/ The promotion must be offered to all firms operating within the region in order to comply with the anti-collusion provisions set forth in the Robinson-Patman Act.

Advertising and promotion is a large part of the marketing budget for brand processors in developing consumer brand loyalty and market share. Most advertising in the United States is through mass media; that is, television, which has been shown to reinforce repeated buying habits. The advertising-to-sales ratio is the most commonly used proxy of advertising intensity. During 1974 to 1976, the latest period for which results are readily available, media advertising for frozen fruits and vegetables and other preserved fruits and vegetables accounted for 3.4 and 3.5 percent of sales, respectively (13). These percentages were slightly more than the average 3.2-percent media advertising expenditures for total food. Media advertising expenditures were greatest for highly competitive products such as wine (4.8 percent of sales) and tomato sauce (4.7 percent), relative to less competitive products such as canned fruit and vegetable juice (1.1 percent) and frozen fruits and vegetables (2.3 percent) (12). Research has shown that both generic and brand advertising have been successful in expanding sales for Florida products, especially sales of frozen citrus concentrates (40, 41).

In addition to media advertising, processors also spend large amounts on other forms of advertising and promotion such as "push" promotion directed at food distributors and "pull" advertising directed at consumers. "Push" promotion activities, targeted to persuading food distributors to stock a particular brand, may include point-of-purchase store displays, direct field sales forces, cooperative advertising arrangements, discount and rebate policies, and liberal delivery and return practices. These activities accounted for 50-100 percent of a food processor's promotion costs in 1979 (19). "Pull" advertising activities, designed to introduce consumers to new products or to increase market share, include premium package design, contests, trading stamps, sweepstakes, and free samples either in-store or by direct mail, and boost sales promotion costs by at least 65 percent above media advertising costs (19). Overall, frozen fruit and vegetable processors, and other preserved fruit and vegetable processors spent 19.3 and 14.1 percent of their total sales, respectively, in total selling expenses during 1974-76 (13).

Implications for Food System Organization

The above discussions are but general summaries of processed fruit and vegetable industry structure and of processor-retailer relationships and procurement practices for processed products in the United States. These relationships and practices are constantly changing along with supply and demand conditions and are spurred by the desire at each marketing stage to shift risk. Several broad trends are worth noting.

First, brand processors will likely continue diversification and new product development efforts as a means to reduce the impact that uncertain input supplies and retailer procurement practices have on profits and sales. Conglomerate mergers, mergers among companies with leading market shares, and increasing internationalization will probably continue among processors of most fruit and vegetable product classes. These trends suggest that the balance of power will largely remain in the processors' hands and that concentration will increase.

Secondly, retailers will gain in countervailing power as larger firms obtain more buying power, expand private label programs, and increase economies of scale. Mergers and acquisitions involving wholesalers and retailers are also likely to increase in number (22).

Finally, growing consumer welfare concerns and internationalization of marketing activities will increase the role of government in monitoring the production and distribution activities of U.S. fruit and vegetable processing firms.

U.S. GOVERNMENT REGULATION OF THE FRUIT AND VEGETABLE PROCESSING INDUSTRIES

State and Federal regulations pervade the production, processing, and marketing of fruits and vegetables. Some regulations such as the USDA voluntary grade standards relate exclusively to fruits and vegetables. Others apply to a broader spectrum of industry, but have primary or secondary effects which bear heavily on decisionmaking by firms in the fruit and vegetable processing subsector. Occupational Safety and Health Administration (OSHA) standards for workers in processing plants and Environmental Protection Agency (EPA) standards for pesticide clearance and use are examples of the latter type.

Regulations that appear particularly important to the U.S. fruit and vegetable industry in terms of costs and benefits are: (1) Food and Drug Administration (FDA) regulations relating to product identity, quality, and fill of container, (2) EPA regulations pertaining to environmental protection, (3) OSHA rules pertaining to worker health and safety, and (4) USDA grades and standards. Other regulations affecting the U.S. fruit and vegetable industry (not an all-inclusive list) are USDA regulations relating to the school lunch program, U.S. Department of Commerce regulations pertaining to weights and measures, Federal Trade Commission regulations pertaining to prohibited trade practices, and U.S. Department of Treasury regulations relating to production, advertising, and sale of wines. The following section presents an overview of regulations relating to the importation and domestic sale of processed fruits and vegetables.

Product Safety, Quality, and Labeling

The Federal Food, Drug, and Cosmetic Act (FDCA) administered by FDA is the basic food and drug law of the United States. Many individual States have laws similar to the Federal law, and some have provisions to add automatically any new Federal requirements. The law is intended to assure that foods are pure and wholesome, safe to eat, produced under sanitary conditions, and that all labeling and packaging is truthful, informative, and not deceptive. Another law, the Fair Packaging and Labeling Act (FPLA), affects the contents and placement of information required on the package. The legal requirements that must be met are the same for imported and domestic fruit and vegetable products.

Standards of identity, quality, and fill of container established under the FDCA are separate and distinct from the "standards and grades" published and administered by the USDA for agricultural products. The FDCA prohibits distribution in the United States or importation of products that are adulterated or misbranded. "Adulteration" relates to the content of the product and includes products that are defective, unsafe, filthy, or produced under unsanitary conditions. "Misbranding" relates to any statement, including designs or pictures on labels, that are false or misleading, as well as failure to provide required information on product labels. Misbranding also includes products which purport to be standardized but fail to comply with the applicable FDA standards of identity.

Section 401 of the FDCA provides for issuing a reasonable definition and standard of identity, a reasonable standard of quality, and/or a reasonable standard of fill on containers for any food product. Standards of identity require a definition of a given food product, the product name, the necessary or optional ingredients to be used in the product, and which of these ingredients must be declared on the label. Standards of quality are minimum standards only and establish specifications for quality requirements. Fill of container standards define how full the container must be and how the quantity contained is to be measured. This standard relates directly to processed fruits and vegetables excluding most fresh and dried fruit and vegetables.

According to FDCA, a food is illegal (adulterated) if:

(1) It bears or contains any added poisonous or deleterious (harmful) substance which may render it injurious to health.

(2) It bears or contains a naturally occurring poisonous or deleterious substance which ordinarily renders it injurious to health.

(3) It is prepared, packed, or held under unsanitary conditions whereby it may have become contaminated with filth or rendered injurious to health.

(4) It is filthy, putrid, or decomposed.

(5) It contains raw agricultural products containing residues of pesticides not authorized by or in excess of tolerances established by regulations of the EPA.

(6) It is economically adulterated by substituting a less expensive for a more expensive one.

Also, "food additives" must be cleared for safety before they may be used in foods, or become a part of a food as a result of processing, packaging, transporting, or holding. Coloring (or dyes) added to food must be FDA-approved. Damage or inferiority in food must not be concealed in any manner.

The FDCA also provides that food labels or labeling must not be misleading in any particular way, and the required label information must be conspicuously displayed in terms that the ordinary customer can comprehend. In addition, food containers must not be made, formed, or filled as to be misleading.

Fruit and vegetable processors as well as consumers have a direct interest in food safety policy because of the impact of regulation on costs, technology, and products, and the necessity of maintaining product integrity. Food safety issues confronting the fruit and vegetable processing industries today include changing regulations on pesticides, dyes and sulfites, and irradiation.

Increasing public concern over the health risks associated with pesticide use has led to efforts to amend certain provisions of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), the Federal law regulating pesticide use.20/ Exemplifying this concern is the growing controversy over daminozide (marketed under the trade name Alar), a growth-regulator widely used in apple

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20/ While provisions of the law were actively debated in the U.S. Congress during 1986, amendments were not passed.

and grape production which also extends storage life. Daminozide is currently under close scrutiny by FDA as a possible carcinogen and public interest groups have petitioned EPA to establish zero tolerance levels of the chemical on fresh and processed apples and grapes.

Since daminozide has not yet been determined as a certain cancer risk, FDA has taken steps to limit its use by reducing application rates and legal residues while toxicology studies are ongoing. The vast majority of fruit processors, however, have refused to accept daminozide-treated fruit, supported by a "use advisory" issued by the manufacturer cautioning against the use of treated apples in applesauce, until further cost-benefit information is determined (1, 15).

Sulfite use in processed foods is also under watch by FDA. FDA proposed a rule in 1985 which would require labeling of any sulfite residues, including processing and incidental additives, above 10 parts per million (ppm). Food trade associations supported the law for sulfite labeling at 100 ppm (31). FDA ruled in July 1986, effective January 1987, that all processed foods with detectable sulfite levels of 10 ppm or more must be labeled. FDA also banned sulfite use on all fresh fruits and vegetables.

The safety of food colors also continues to be a controversial issue between FDA and the food processing sector but has little effect on the fruit and vegetable processing industries. The use of color additives in fruit and vegetable processed products is basically limited to cherries.

Radiation is legally considered a food additive. FDA approval for low-dose irradiation of selected fruits and vegetables was granted in April 1986. Consumer acceptance, however, may be fostered only through their learning more about the technology and the benefits associated with reducing dependence on chemicals (4, 26, 27).

Irradiation can be used on fruits and vegetables as an alternative to chemical fumigants to delay ripening, eliminate insects, and reduce postharvest disease. Spices are the only fruit or vegetable processed products approved for low-dose irradiation, but the process holds potential for raisins, nuts, and other processed fruits and vegetables if approval for higher dosages is granted. Irradiated foods sold at retail must carry the statement "Treated with radiation" or "Treated by irradiation." However, processed foods not themselves irradiated, but containing irradiated ingredients, are not required to carry the label.

Food package information falls into three categories: (1) Mandatory information, (2) mandatory wording of optional information, and (3) unregulated information. Mandatory information on the food package or label must include an approved statement of identity of the food contained in the package, net quantity of food contents, name and address of business or manufacturer, ingredients, and manufacturer's code. The information must appear in English if packaged in the United States and must be prominent and conspicuous. If the food label bears representations in a foreign language, the label must bear all of the required statements in the foreign language as well as in English. The Tariff Act of 1930 requires all imported articles to be marked with the English name of the country of origin.

Certain types of information are not mandatory labeling, but if included, must meet certain requirements. These include nutritional labeling, grades, labeling for special dietary use, savings representations, and warning statements. Nutrition labeling becomes mandatory if a food is fortified and/or a nutritional claim is made on the package. Information such as universal product codes, the date the product was manufactured, and symbols of food labeling such as the symbol "R" or little "R" inside a letter "O" signifying that the trademark used on the label is registered with the U.S. patent offices, are not regulated. Other unregulated information may appear on labels as well. This information may include brand names, suggested recipes, storage and cooking instructions or recommendations, games, comics, or competitions.21/ Unregulated information must not be misleading.

The FDA does not have legal authority to restrict the number of different package sizes in which a food may be sold. It does, however, have the authority to define the range of package sizes; for example, "small," "medium," "large," and "extra large," providing some degree of package size standardization.

USDA Voluntary Grade Standards

U.S. grade standards for processed fruits and vegetables are developed by USDA's Agricultural Marketing Service (AMS). Grade standards have been issued for approximately 158 different products from 76-80 commodities. Compliance with the USDA grade standards does not excuse failure to comply with the provisions of FDCA or with applicable State laws or regulations.

The U.S. grade standards for processed fruits and vegetables, with a few exceptions, provide for three different quality grades above substandard. Grade names are alphabetical at all stages in the marketing channel, from the point of packaging to the point of retail display. Grade standards describe the quality requirements for each grade of a commodity. The highest grade (U.S. Grade A), represents the quality most desired by the trade and the consumer. Lower grades represent levels of quality that are less desirable, but are of good value and merchantable under normal market and supply conditions. The number of grades and grade names for each commodity depends on the number of distinct quality gradations that the industry normally recognizes in trading in the commodity.

Grade labeling of processed fruits and vegetables is not compulsory. If the product is grade-labeled, however, the labeling must be correct, or legal action may be brought against the seller for misrepresentation. If processed fruits and vegetable products are grade-labeled where the "U.S." prefix to the grade is used on the label, or if the USDA shield is used in connection with the grade, the product is required to have been inspected by USDA. Processors must pay user fees for inspection services provided by official USDA inspectors.

21/ FDA has prepared a publication, "Requirements and Laws and Regulations Enforced by the U.S. Food and Drug Administration," summarizing the major requirements of all the statutes it administers. In addition, FDA regulations are published in book format in the Code of Federal Regulations, and are revised each year as of April 1, to incorporate the revisions and additions from the previous year. Both of these documents are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Frozen Food Codes

A "Frozen Food Code" was adopted by the U.S. Association of Food and Drug Officials (AFDO) in June 1961. The code, intended as a model for individual State Governments in issuing frozen food standards, designated approved practices for the commercial manufacturing, transportation, warehousing, and retail handling of frozen foods. About a quarter of the individual States have adopted frozen food standards patterned after the AFDO code. Since its adoption, the Frozen Food Code has not been modified to reflect industry changes such as new products and processing technology or to take account of advances made in frozen food handling and merchandising. Therefore, many of its provisions have become obsolete.

The Frozen Food Roundtable, a group representing trade associations in the frozen food industry, established a "Code of Recommended Practices for Handling and Merchandising Frozen Foods" that reflects current research, new technologies, products, and advances in frozen food handling and merchandising.[22] The code relates to the proper handling and merchandising of frozen food from the raw material stage to the consumer. Although its adoption is voluntary, the code represents an effort by the U.S. food industry to disseminate information on sound, up-to-date practices for the care and handling of frozen foods.

International Food Standards

The codex alimentarius is an international body established in 1963 by the Food and Agriculture Organization (FAO) of the United Nations and the World Health Organization (WHO). The commission's primary objectives, to protect consumers and facilitate world trade, were achieved by establishing uniform international food standards, collectively known as the codex alimentarius. The latter is also the title of an FAO/WHO publication for such standards.

The codex alimentarius includes minimum standards for consumer distribution of all principal foods. The foods may be in raw, semi-processed, or processed form. The standards take into consideration the composition, minimum quality, food hygiene, adulterants, food additives, industrial contaminants, food colors, pesticide residues and related substances, packaging, labeling and presentation, methodology in sampling and analysis, and other related factors. Codex alimentarius standards are not enforced in the United States. However, FDA has a process to review proposed codex standards, which may lead to amending an existing U.S. standard. The U.S. fruit and vegetable industries, however, are currently considering a proposal to replace FDA standards with codex alimentarius standards except for specifically legislated exemptions that are deemed necessary to overrule those of the codex alimentarius.

Import/Export Regulations on Wine

The Bureau of Alcohol, Tobacco, and Firearms (BATF) administers Federal statutes pertaining to the collection of taxes on alcoholic beverages, including wines. BATF regulations pertaining to imported wines are contained in the Code of Federal Regulations 27 CFR 251, "Importation of Distilled Spirits, Wines and Beer." These regulations pertain to taxes, permits, marking, branding, labeling, stamping of containers and packages, and records and reports. Regulations relating to the exporting of wine from the United States are contained in 27 CFR 252, "Exportation of Liquors." These include requirements for alcohol products in regard to removal, shipment, lading, deposit, evidence of exportation, losses, claims, and bonds.

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[22] The code is published by the Frozen Food Roundtable, 1055 Thomas Jefferson St., NW., Washington, DC 20007.

Trade Policies

The United States imposes a tariff on most fruit and vegetable products imported into the "customs territory of the United States." The customs territory of the United States includes all States, the District of Columbia, and Puerto Rico. The system of duties is set forth in the *Tariff Schedules of the United States* (TSUS).23/ Under the Generalized System of Preferences, products from certain countries may receive preferential duty treatment upon entry into the United States. Countries designated as "beneficiary developing countries" are provided duty-free treatment for some products. Duty-free treatment is also provided for many items imported from 21 countries and territories as provided by the Caribbean Basin Economic Recovery Act. Fruit and vegetable products produced in these countries are eligible for duty-free treatment until 1995. Other countries, especially those designated "least developed and developing countries," receive a preferential duty on certain products imported into the United States. Products of some centrally planned countries are subject to the higher 1930 statutory tariff rate.

The United States also protects domestic industries from "unfair competition" from imported products. Countervailing duties, equal to the estimated net subsidies, may be imposed when the U.S. Department of Commerce determines that a country is subsidizing producers of a product being imported into the United States. If the country is a signatory to the Subsidies Code negotiated in the Tokyo Round in 1979, the U.S. International Trade Commission (USITC) must also find that an industry in the United States is materially injured or threatened with such injury by the subsidized imports. Material injury is defined to be harm which is "not inconsequential, immaterial, or unimportant."

For products originating in countries not under the GATT agreement, a countervailing duty can be levied on dutiable articles without an injury investigation and determination of material injury. For example, as a result of a countervailing investigation prompted by a petition from the Florida citrus industry in 1983, a duty of 3.51 percent of the f.o.b. (free-on-board) value was levied on FCOJ from Brazil. An agreement was reached with the Brazilian Government whereby the duty would not be collected, providing that Government imposed an offsetting tax on its producers and exporters of FCOJ.

Anti-dumping duties may also be assessed on production being sold in the United States at less than "fair value." The procedure is the same as that used in determining countervailing duties. An anti-dumping duty, equal to the estimated "margin of dumping," may be imposed on imported production when the U.S. Department of Commerce finds, and the USITC determines, that the domestic industry is materially injured. The material injury definitions include retarding the establishment of a U.S. domestic industry. For example, the Florida citrus industry filed a petition in May 1986 for imposing anti-dumping duties on FCOJ from Brazil. An injury investigation found that there was "a

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23/ The U.S. tariff schedule is issued and updated periodically by the U.S. International Trade Commission in a publication entitled *Tariff Schedules of the United States Annotated*, which is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

reasonable indication that the domestic citrus growers and processors were being materially injured." However, offsetting duties can be imposed only if an independent investigation finds that the Brazilian exporters are in fact selling FCOJ at less than fair value.

Implications for Subsector Performance

It is difficult to assess the costs and benefits of regulations on the U.S. food manufacturing sector, let alone to assess the impact on the fruit and vegetable processing subsector. Justification for government intervention lies in market failure. Markets may be distorted because of imperfect market structure (monopoly), which provides the primary basis for U.S. antitrust laws, or because of unfair trade competition, which provides the basis for tariff and anti-dumping legislation. Externalities, like air, water, or noise pollution, provide the basis for environmental protection and food and worker safety laws. Markets may also fail because of inadequate consumer information, the basis of food quality and consumer protection laws (12). The preceding section summarizes the most important laws regulating the processing and marketing of fruit and vegetable products in the United States focusing on those which affect both domestic activity and international trade.

The environment in which fruit and vegetable processors operate is complex. Trends in structure, technology, and demand are induced or constrained not only by industry-specific policies and regulations but by farm, consumer, and macroeconomic policies as well (3). Government regulation in the United States, as in other countries, tends to develop as economic conditions, technology, and society's perceptions change. It is evident that the U.S. fruit and vegetable processing subsector is dynamic in responding to changes in these factors by modifying coordination systems, adopting new processing and packaging technologies, and developing new products.

Industrial policy affects processing fruit and vegetable production through grading and other product standards, and selected food safety requirements. The fruit and vegetable processing industries are constrained by regulation and consumer influence to meet selected grading benchmarks. Processed fruit and vegetable products must meet USDA grading standards. Consistently high grade products win consumer loyalty, expand market share, and increase returns. Thus, brand manufacturers have considerable interest in maintaining the grade and quality of raw inputs purchased, especially for fruits and vegetables purchased for freezing. Since fruit and vegetable producers are now dealing with a smaller number of larger and more diversified firms processing brand products, and the possibility of product rejection at times may be high, markets for alternative uses of lesser grade commodities have expanded, with more goods sold under a generic label.

Producers are also directly or indirectly affected by food safety requirements since government may directly prohibit or limit the use of certain products and processors may refuse to accept fruits and vegetables treated with certain chemicals. The recent refusal by processors to accept apples treated with daminozide is a good example of this interaction.

Rising concentration and power in the fruit and vegetable processing industries have encouraged vertical integration between the production and processing stages. Government regulations have provided partial exemptions from general antitrust laws for the formation of agricultural cooperatives. Marketing orders and agreements also provide fruit and vegetable producers

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with a degree of countervailing power against processors and other handlers. However, few fruit and vegetable processing cooperatives have successfully differentiated their products enough to encourage strong consumer loyalty. Most process the primary fruit and vegetable products purchased by foodservice wholesalers and firms processing value-added products.

Fruit and vegetable cooperatives that have successfully developed differentiated products appear to be in the more concentrated industries, such as dried fruits and vegetables, where production is limited by geographical constraints, heavy advertising has created barriers to entry, and cooperatives maintain a high degree of power. Concentration in these industries has increased in recent years, but the level of technical and operational efficiency in these industries also appears to have improved.

Regulation and Technical Change

The rate of technical change in the fruit and vegetable processing subsector, like most food processing subsectors, depends upon R&D expenditures, capital costs, relative prices, resource availability, capital stock, and the need for new capital. The direction of technical change also depends on demographics and consumer tastes and preferences, and is constrained by food safety policy and economic regulation (30).

The relaxation of antitrust laws in recent years has encouraged mergers and acquisitions in the U.S. fruit and vegetable processing subsector. As a result, firms are generally larger, more concentrated, and highly diversified. However, concentration in most fruit and vegetable processing industries has not reached the level of generating major concern. The greater level of capitalization usually afforded larger firms means more progressiveness and bigger budgets for R&D. Fruit and vegetable firms have been progressive in adopting new processing and packaging technologies, largely in response to changing consumer lifestyles, tastes and preferences, and health concerns, but also due to a desire to cut production costs and increase profits.

Processors and consumers must have a direct interest in food safety policy because of the impact of regulation on costs, technology, product composition and packaging, and the necessity to maintain product integrity. As processing technology becomes more sophisticated, and consumers demand more information on food contents and nutritional value, the interaction between consumer and food industry goals is increasingly regulated by the government through product standards. However, enforcement of a consistent food safety policy is difficult. The limited body of knowledge concerning the costs and benefits of many additives and preservatives, the effect of packaging material composition on the food they contain, and the lack of agreement as to true health risks create a world of uncertainty in which food processors must operate (3). Therefore, government can either foster or inhibit industry concentration through individual firms' ability or inability to respond to changing regulations and the effect on consumer prices. For example, increasing regulation of food additives and changing labeling requirements to include information on labels once considered optional will be costly to domestic processors and may also result in rising consumer prices as processors search for other approved additives or change production practices and labels to meet new requirements.

Regulation and International Trade

Greater internationalization of trade in processed fruit and vegetable products means that macroeconomic policies and trade barriers will have more influence on the balance of trade and industry structure and performance. The United States became a net importer of processed fruit and vegetable products in 1984 largely as a result of the strength of the dollar which made relatively lower priced imports more competitive on world markets, including the United States. Larger imports have increased competition and reduced the market power of U.S. fruit and vegetable processors for many products.

The declining dollar has helped U.S. exports of processed fruit and vegetable products in 1986, but imports remain heavy, especially for items with strong domestic demand like canned tomatoes and tomato products. The general direction of U.S. trade policy is toward liberalization, or the reduction of trade barriers through multilateral trade negotiations. The effect of this policy is evident in increasing U.S. exports to Japan and other Pacific Rim countries which relaxed import quotas for some U.S. fruit and vegetable products early in 1986. However, U.S. trade policy currently rests between the Congress leaning toward protectionist measures and the administration supporting free trade (3). Future U.S. trade policy will depend on the balance of power between these two forces and the success of trade negotiations.

REFERENCES

(1) "Alar: Consider the Risks and Rewards," *Fruit Grower*. June 1986, pp. 36-37.

(2) *Analyzing the Potential for Alternative Fruit and Vegetable Crop Production Seminar*. Proceedings of the S-178 Technical Committee Meeting, New Orleans, Nov. 1985.

(3) Archibald, Sandra O., Alex F. McCalla, and Chester O. McCorkle, Jr. "Trends in the U.S. Food-Processing Industry: Implications for Modeling and Policy," *American Journal of Agricultural Economics*, 67:5, Dec. 1985, pp. 1149-1154.

(4) Aylsworth, Jean D. "Irradiation: The Waves of the Future," *Fruit Grower*. May 1986, pp. 26-27.

(5) Blaylock, James R., and David M. Smallwood. *U.S. Demand for Food: Household Expenditures, Demographics, and Projections*. TB-1713, Economic Research Service, U.S. Dept. of Agriculture, Feb. 1986.

(6) Bunch, Karen. *Food Consumption, Prices, and Expenditures, 1964-84*. SB-736, Economic Research Service, U.S. Dept. of Agriculture, Dec. 1985.

(7) Bureau of the Census. *1982 Census of Agriculture: U.S. Summary*. U.S. Dept. of Commerce, issued Mar. 1984.

(8) __________. *Statistical Abstracts of the United States*. U.S. Dept. of Commerce, various years.

(9) Conklin, Neilson, C., Edward Allen, and Robert W. Bohall, "A Profile of the Brazilian Orange Juice Industry," *Fruit Situation and Outlook Report*. TFS-235, Economic Research Service, U.S. Dept. of Agriculture, Sept. 1985.

(10) Connor, John M. "Manufacturing and Food Retailing," *Structural Issues of American Agriculture*. AER-428, Economics, Statistics, and Cooperatives Service, U.S. Dept. of Agriculture, Aug. 1979, pp. 226-234.

(11) ____________. "Food Product Proliferation: A Market Structure Analysis," *American Journal of Agricultural Economics*, 63:4, Nov. 1981, pp. 607-617.

(12) ____________. *Structural Adjustment of the Food Industries of the United States*. Staff Report, Economic Research Service, U.S. Dept. of Agriculture, July 1982.

(13) ______________, and others. *The Food Manufacturing Industries*. Lexington, MA: Lexington Books, 1985.

(14) Cox, Clifton, and Robert Foster. "What's Ahead for the U.S. Food Processing Industry? Discussion," *American Journal of Agricultural Economics*, 67:5, Dec. 1985, pp. 1155-1157.

(15) Derr, Derl I. "Right to the Core," *Fruit Grower*. Apr. 1986, p. 10.

(16) Dunham, Denis. Food Cost Review, 1985. AER-559, Economic Research Service, U.S. Dept. of Agriculture, July 1986.

(17) Economic Research Service, U.S. Department of Agriculture. Fruit Situation and Outlook Report, various issues.

(18) ____________. Vegetable Situation and Outlook Report, various issues.

(19) Gallo, Anthony. "Food Advertising," National Food Review. Economic Research Service, U.S. Dept. of Agriculture, Vol. 13 (Winter), 1981.

(20) Hamm, Larry G. "Food Distribution Procurement Practices: Their Implications for Food System Structure and Coordination." Unpublished Ph.D. thesis, Michigan State University, 1981.

(21) ______________. "Changing Times in the Processed Fruit and Vegetable Industry." Proceedings of the 28th National Bargaining Conference, Jan. 7-8, 1984, Phoenix, Agricultural Cooperative Service, U.S. Dept. of Agriculture, May 1984.

(22) ______________ and Gerald Grinnell. "Evolving Relationships between Food Manufacturers and Retailers: Implications for Food System Organization and Performance," American Journal of Agricultural Economics, 65:5, Dec. 1983, pp. 1065-1072.

(23) Leinen, Robert J., and Betty L. Schumann. "Food Companies Restructure for Future Competition," Food Processing. Dec. 1985, pp. 16-36.

(24) Marion, Bruce W., and NC117 Committee. The Organization and Performance of the U.S. Food System. Lexington, MA: Lexington Books, 1986.

(25) McLaughlin, Edward W. "Buying and Selling Practices in the Fresh Fruit and Vegetable Distribution System: Implications for Vertical Coordination." Unpublished Ph.D. thesis, Michigan State University, 1983.

(26) Morrison, Rosanna M. "Irradiating Fresh Vegetables: Checklist for Commercial Viability," Vegetable Situation and Outlook Report. Economic Research Service, U.S. Dept. of Agriculture, Feb. 1987.

(27) ______________. "The Outlook for Irradiating Fresh Fruit," Fruit Situation and Outlook Report. TFS-240, Economic Research Service, U.S. Dept. of Agriculture, Oct. 1986.

(28) Reimund, Donn A., J. Martin, and C. Moore. Structural Change in Agriculture: The Experience for Broilers, Fed Cattle, and Processed Vegetables. TB-1648, Economic Research Service, U.S. Dept. of Agriculture, Apr. 1981.

(29) Runyan, Jack L., and others. Determining Commercial Marketing and Production Opportunities for Small Farm Vegetable Growers. MRR-1146, Agricultural Marketing Service, U.S. Dept. of Agriculture, July 1986.

(30) Sanderson, Gary W., and Bernard S. Schweigert. "Technical Forces Shaping the U.S. Food-Processing Industry," American Journal of Agricultural Economics, 67:5, Dec. 1985, pp. 1143-1148.

(31) Semling, Harold V. "Food Regulations: 1986 Outlook," *Food Processing*. Jan. 1986, pp. 10-16

(32) ________________. "Irradiation Processing Inching Ahead One Rule at a Time," *Food Processing*. Mar. 1986, pp. 12-13.

(33) Skinner, Robert A. "Current Status in Trends in Cooperative Bargaining." Proceedings of the 28th National Bargaining Conference, Jan. 7-8, 1984, Phoenix, Agricultural Cooperative Service, May 1984.

(34) Smallwood, David M., and James R. Blaylock. *Household Expenditures for Fruits, Vegetables, and Potatoes*. TB-1690, Economic Research Service, U.S. Dept. of Agriculture, May 1984.

(35) Somwaru, Agapi. *Disaggregated Farm Income by Type of Farm, 1959-82*. AER-558, Economic Research Service, U.S. Dept. of Agriculture, Aug. 1986.

(36) Swientek, Robert J. "Aseptic Juice Concentrate in Paperboard Cartons - An Untapped Market," *Food Processing*. June 1984, pp. 28-30.

(37) U.S. Department of Agriculture. *Agricultural Statistics, 1985*.

(38) *U.S. Industrial Outlook 1986*. U.S. Dept. of Commerce, Bureau of the Census.

(39) *Wall Street Journal*. "Retailers Buy Far in Advance to Exploit Trade Promotions." Oct. 9, 1986.

(40) Ward, Ronald W., and Lester Myers. "Advertising Effectiveness and Coefficient Variation Over Time," *Agricultural Economics Research*, Vol. 31, No. 1, Jan. 1979.

(41) ______________ and Richard L. Kilmer. *The United States Citrus Subsector: Organization, Behavior and Performance*. University of Florida Staff Paper No. 119, Gainesville, Mar. 1979.

Appendix table 1--Fruits used for estimating per capita utilization, United States [1]

Commodity and form						
Fresh	Chilled juice	Canned	Canned juice	Frozen	Frozen juice	Dried
Oranges	Orange	Apricots	Orange	Blackberries	Orange, conc.	Dates
Grapefruits	Grapefruit	Berries	Grapefruit	Blueberries	Grapefruit, conc.	Figs
Tangerines		Cherries, sweet	Blends	Raspberries	Tangerines, conc.	Grapes
Lemons		Cherries, tart	Lemons	Strawberries	Lemon, conc.	Prunes
Limes		Cherries, brined	Limes	Other berries	Lemonade, conc.	
Tangelos		Fruit cocktail	Grapes	Apples	Lemon, S.S.	
Apples		Olives, ripe	Prunes	Apricots		
Apricots		Olives, brined	Nectars	Cherries, sweet		
Avocados		Peaches		Cherries, tart		
Bananas		Pears		Grapes		
Cherries, sweet		Plums & prunes		Peaches		
Cherries, tart				Plums		
Cranberries				Prunes		
Figs				Miscellaneous		
Grapes						
Kiwifruit						
Nectarines						
Peaches						
Pears						
Pineapples						
Plums & prunes						
Strawberries						
Papayas						
Misc. fruit						

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[1] Fruit per capita utilization estimates are published regularly in "Fruit Outlook and Situation Report," Economic Research Service, U.S. Dept. of Agriculture.

Appendix table 2--Vegetables used for estimating per capita utilization, United States 1/

Commodity and form		
Fresh	Canned	Frozen
Asparagus	Asparagus	Asparagus
Broccoli	Green beans	Green beans
Carrots	Carrots	Broccoli
Cauliflower	Sweet corn	Carrots
Celery	Pickled cucumbers	Cauliflower
Sweet corn	Green peas	Sweet corn
Honeydews	Potatoes	Green peas
Lettuce	Tomatoes	Potatoes
Potatoes		
Onions		
Tomatoes		

1/ Vegetable per capita utilization estimates are published regularly in the "Vegetable Situation and Outlook Report," Fruits, Vegetables, and Sweeteners Branch, Economic Research Service, U.S. Dept. of Agriculture.

Appendix table 3--U.S. processed vegetables harvested area, production, and value by region, selected years

Commodity/State	Area harvested				Production				Value			
	1970	1980	1985	AAG 1/	1970	1980	1985	AAG 1/	1970	1980	1985	AAG 1/
Northeast:	--------Hectares--------			Percent	--------Metric tons--------			Percent	--------Dollars--------			Percent
New York--												
Green beans	19,863	18,732	13,484	-3	93,304	102,711	82,717	1	9,215	19,134	16,777	4
Sweet corn	NA	6,863	11,990	11	NA	77,882	110,196	7	NA	4,198	7,738	12
Green peas	NA	2,422	4,845	14	NA	9,144	25,474	20	NA	2,802	8,564	22
Tomatoes	1,211	NA	NA		35,652	NA	NA	NA	1,713	NA	NA	NA
Total	21,074	28,018	30,319	2	128,956	189,738	218,387	4	10,928	26,134	33,079	7
Pennsylvania--												
Green beans	2,342	2,382	1,817	-2	10,523	8,301	14,007	2	1,172	1,601	3,196	7
Sweet corn	2,866	1,615	1,655	-4	22,952	12,846	14,769	-3	645	695	848	2
Green peas	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA
Tomatoes	3,068	1,373	1,130	-7	136,985	36,641	49,405	-7	5,814	2,875	4,112	-2
Total	8,276	5,369	4,602	-4	170,460	57,788	78,181	-5	7,631	5,171	8,156	0
New Jersey--												
Green beans	NA	2,584	3,351	5	NA	15,331	23,569	9	NA	3,228	5,352	10
Sweet corn	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Green peas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tomatoes	5,854	2,180	1,696	-8	254,012	56,236	83,633	-7	11,648	4,600	6,914	-3
Total	5,854	4,764	5,046	-1	254,012	71,568	107,202	-6	11,648	7,828	12,266	0
Delaware--												
Green beans	2,503	2,463	NA	-0	13,835	11,249	NA	-2	1,449	1,972	NA	3
Sweet corn	1,171	969	1,857	3	10,387	10,678	23,913	6	273	1,005	1,877	13
Green peas	2,342	2,342	5,006	5	9,798	8,047	20,140	5	1,177	2,195	6,149	11
Tomatoes	606	NA	444	-2	22,453	NA	12,646	-4	1,040	NA	1,005	-0
Total	6,621	5,773	7,307	1	56,472	29,973	56,699	0	3,939	5,172	9,031	6
Grand total	41,825	43,924	47,275	1	609,900	349,067	460,469	-2	34,146	44,305	62,532	4

NA = Not available.

1/ AAG = Annual average growth rate.

Continued---

Appendix table 3--U.S. processed vegetables harvested area, production, and value by region, selected years--Continued

Commodity/State	Area harvested				Production				Value			
	1970	1980	1985	AAG 1/	1970	1980	1985	AAG 1/	1970	1980	1985	AAG 1/
South:	---------Hectares---------			Percent	---------Metric tons---------			Percent	---------Dollars---------			Percent
Oklahoma--												
Green beans	807	NA	NA	NA	3,084	NA	NA	NA	303	NA	NA	NA
Sweet corn	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Green peas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tomatoes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	807	NA	NA	NA	3,084	NA	NA	NA	303	NA	NA	NA
Texas--												
Green beans	1,736	NA	NA	NA	7,257	NA	NA	NA	771	NA	NA	NA
Sweet corn	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Green peas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tomatoes	1,817	565	NA	-12	27,397	9,017	NA	-11	997	671	NA	-4
Total	3,553	565	NA	-18	34,654	9,017	NA	-13	1,768	671	NA	-10
Arkansas--												
Green beans	2,220	NA	1,332	-3	10,115	NA	6,523	-3	1,126	NA	1,251	1
Sweet corn	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Green peas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tomatoes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	2,220	NA	1,332	-3	10,115	NA	6,523	-3	1,126	NA	1,251	1
Tennesse--												
Green beans	4,400	4,885	NA	1	21,636	11,530	NA	-6	2,552	2,682	NA	0
Sweet corn	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Green peas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tomatoes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	4,400	4,885	NA	1	21,636	11,530	NA	-6	2,552	2,682	NA	0
Maryland--												
Green beans	3,391	1,978	NA	-5	16,919	7,820	NA	-8	1,790	1,457	NA	-2
Sweet corn	7,953	4,279	3,633	-5	60,237	32,768	49,315	-1	1,614	2,444	3,577	5
Green peas	2,866	1,615	767	-9	9,163	5,625	3,656	-6	1,101	1,618	1,225	1
Tomatoes	1,776	1,373	929	-4	54,295	24,403	37,349	-2	2,394	1,910	2,993	1
Total	15,987	9,245	5,329	-7	140,614	70,615	90,319	-3	6,899	7,429	7,795	1

NA = Not available.

Continued--

1/ AAG = Annual average growth rate.

Appendix table 3--U.S. processed vegetables harvested area, production, and value by region, selected years--Continued

Commodity/State	Area harvested				Production				Value			
	1970	1980	1985	AAG 1/	1970	1980	1985	AAG 1/	1970	1980	1985	AAG 1/
	Hectares			Percent	Metric tons			Percent	Dollars			Percent
South--Continued:												
Virginia--												
Green beans	767	1,171	NA	4	3,629	4,001	NA	1	424	789	NA	NA
Sweet corn	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Green peas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tomatoes	2,220	848	565	-9	32,024	16,293	22,861	-2	1,324	1,322	2,039	3
Total	2,987	2,019	565	-11	35,652	20,294	22,861	-3	1,748	2,111	2,039	1
North Carolina--												
Green beans	767	1,130	686	-1	3,447	4,091	2,549	-2	343	809	658	4
Sweet corn	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Green peas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tomatoes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	767	1,130	686	-1	3,447	4,091	2,549	-2	343	809	658	4
South Carolina--												
Green beans	161	NA	NA	NA	862	NA	NA	NA	77	NA	NA	NA
Sweet corn	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Green peas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tomatoes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	161	NA	NA	NA	862	NA	NA	NA	77	NA	NA	NA
Georgia--												
Green beans	NA	323	NA	NA	NA	1,814	NA	NA	NA	420	NA	NA
Sweet corn	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Green peas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tomatoes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	NA	323	NA	NA	NA	1,814	NA	NA	NA	420	NA	NA
Florida--												
Green beans	NA	2,947	484	-36	NA	12,782	1,633	-41	NA	2,790	540	-33
Sweet corn	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Green peas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tomatoes	2,705	NA	NA	NA	39,463	NA	NA	NA	1,475	NA	NA	NA
Total	2,705	2,947	484	-11	39,463	12,782	1,633	-21	1,475	2,790	540	-7
Grand total	33,589	21,114	8,397	-9	289,528	130,145	123,885	-6	16,291	16,912	12,283	-2

NA = Not available.

1/ AAG = Annual average growth rate.

Continued--

Appendix table 3--U.S. processed vegetables harvested area, production, and value by region, selected years--Continued

Commodity/State	Area harvested				Production				Value			
	1970	1980	1985	AAG 1/	1970	1980	1985	AAG 1/	1970	1980	1985	AAG 1/
North Central:	Hectares			Percent	Metric tons			Percent	Dollars			Percent
Minnesota--												
Green beans	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sweet corn	42,753	40,856	47,759	1	465,930	497,591	619,235	2	10,375	27,425	40,614	9
Green peas	26,726	26,766	32,903	1	64,864	70,969	116,818	4	7,865	19,088	30,905	9
Tomatoes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	69,479	67,622	80,662	1	530,794	568,560	736,054	2	18,240	46,513	71,519	9
Iowa--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Green beans												
Sweet corn	3,795	1,252	NA	-11	40,869	16,393	NA	-9	937	914	NA	-0
Green peas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tomatoes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	3,795	1,252	NA	-11	40,869	16,393	NA	-9	937	914	NA	-0
Wisconsin--												
Green beans	17,804	31,813	34,639	4	90,401	192,151	225,726	6	7,942	28,298	37,821	10
Sweet corn	47,477	42,834	53,048	1	407,553	465,858	606,753	3	10,647	22,954	40,330	9
Green peas	47,880	40,815	39,604	-1	124,829	139,407	145,948	1	15,136	30,273	36,359	6
Tomatoes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	113,161	115,462	127,291	1	622,783	797,416	978,426	3	33,725	81,525	114,510	8
Illinois--												
Green beans	3,633	2,665	NA	-3	15,286	18,198	NA	2	1,616	3,049	NA	6
Sweet corn	18,288	15,260	14,614	-1	158,213	146,084	187,515	1	4,709	10,225	13,870	7
Green peas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tomatoes	1,817	NA	NA	NA	65,227	NA	NA	NA	2,869	NA	NA	NA
Total	23,738	17,925	14,614	-3	238,726	164,282	187,515	-2	9,194	13,274	13,870	3
Michigan--												
Green beans	4,078	6,984	7,549	4	18,144	34,800	44,107	6	1,894	5,984	7,682	9
Sweet corn	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Green peas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tomatoes	1,332	2,422	2,665	5	50,031	66,841	150,883	7	2,035	5,371	13,306	13
Total	5,410	9,407	10,214	4	68,175	101,641	194,990	7	3,929	11,355	20,988	11
Indiana--												
Green beans	NA	969	1,292	6	NA	5,026	7,403	8	NA	798	1,428	12
Sweet corn	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Green peas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tomatoes	6,056	3,876	2,745	-5	267,801	96,670	127,078	-5	11,424	7,917	11,094	-0
Total	6,056	4,845	4,037	-3	267,801	101,695	134,481	-5	11,424	8,715	12,522	1
Ohio--												
Green beans	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sweet corn	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Green peas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tomatoes	10,335	6,782	6,419	-3	495,005	228,611	367,383	-2	20,571	17,917	31,264	3
Total	10,335	6,782	6,419	-3	495,005	228,611	367,383	-2	20,571	17,917	31,264	3
Grand total	231,974	223,294	243,238	0	2,264,152	1,978,598	2,598,849	1	98,020	180,213	264,673	7

NA = Not available.

1/ AAG = Annual average growth rate.

Continued--

Appendix table 3--U.S. processed vegetables harvested area, production, and value by region, selected years

Commodity/State	Area harvested				Production				Value			
	1970	1980	1985	AAG 1/	1970	1980	1985	AAG 1/	1970	1980	1985	AAG 1/
West--	---------Hectars--------			Percent	-------Metric tons---------			Percent	----------Dollars---------			Percent
California--												
Green beans	2,866	1,817	NA	-5	1,747	2,593	NA	4	1,926	2,858	NA	4
Sweet corn	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Green peas	2,786	2,382	NA	-2	1,425	2,042	NA	4	1,571	2,251	NA	4
Tomatoes	57,045	84,094	87,606	3	96,406	300,083	354,837	9	106,269	330,785	391,141	9
Total	62,697	88,292	87,606	2	99,578	304,718	354,837	8	109,766	335,894	391,141	8
Washington--												
Green beans	1,171	969	606	-4	982	1,341	705	-2	1,083	1,478	777	-2
Sweet corn	10,941	14,816	15,704	2	3,818	16,683	20,364	11	4,209	18,390	22,448	11
Green peas	26,968	23,335	24,828	-1	10,571	16,698	21,424	5	11,652	18,406	23,616	5
Tomatoes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	39,080	39,120	41,138	0	15,371	34,722	42,493	7	16,944	38,274	46,841	7
Oregon--												
Green beans	11,183	12,556	9,366	-1	12,468	22,565	19,817	3	13,744	24,874	21,844	3
Sweet corn	11,910	13,605	15,583	2	5,210	16,533	22,430	10	5,743	18,224	24,725	10
Green peas	17,642	13,161	14,291	-1	3,843	8,494	7,993	5	4,236	9,363	8,811	5
Tomatoes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	40,735	39,322	39,241	-0	21,521	47,592	50,240	6	23,723	52,461	55,380	6
Colorado--												
Green beans	686	3,109	NA	NA	386	300	NA	NA	426	331	NA	NA
Sweet corn	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Green peas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tomatoes	444	190	347	-2	389	371	1,116	7	429	409	1,230	7
Total	1,130	3,298	347	-8	776	671	1,116	2	855	740	1,230	2
Idaho--												
Green beans	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sweet corn	8,236	7,186	6,984	-1	2,886	7,234	8,367	7	3,181	7,974	9,223	7
Green peas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tomatoes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	8,236	7,186	6,984	-1	2,886	7,234	8,367	7	3,181	7,974	9,223	7
Grand total	151,877	177,218	175,317	1	140,132	394,937	457,053	8	154,469	435,343	503,815	8

NA = Not available.

1/ AAG = Annual average growth rate.

Appendix table 4--U.S. canned vegetable packs

Commodity	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
					1,000 cases 1/					
Asparagus	3,609	3,705	3,382	2,819	2,535	2,844	2,727	2,549	2,928	3,097
Beans, green	44,027	50,952	53,229	62,624	54,769	49,797	46,335	44,227	49,566	53,229
Beans, wax	3,394	3,541	3,892	3,657	3,384	3,012	2,496	2,279	2,523	2,274
Beans, Lima	2,812	2,657	3,356	3,061	2,833	2,602	2,275	2,338	2,316	1,966
Beets 2/	9,201	11,289	12,973	15,103	10,878	9,657	10,868	9,039	9,292	9,108
Carrots 2/	5,221	6,586	6,250	7,267	4,365	5,251	5,932	4,695	5,100	4,365
Carrots and peas	1,894	1,658	1,765	2,096	1,624	1,360	3/	3/	3/	3/
Corn, sweet	54,694	56,300	57,907	60,022	50,574	57,949	60,522	51,595	56,879	55,729
Leafy greens	3,125	2,632	2,880	3,195	2,624	2,120	1,584	3/	3/	3/
Okra	204	225	257	436	391	264	359	3/	3/	3/
Okra and tomatoes	163	261	187							
Peas, field	1,875	2,223	2,364	2,542	1,965	2,895	1,998	3/	3/	3/
Peas, green	31,927	30,238	25,269	36,492	30,056	27,296	24,790	20,827	23,312	29,306
Pimientos	702	407	376	530	540	608	756	3/	3/	3/
Potatoes, sweet 2/	7,960	7,194	9,436	9,174	5,917	7,995	7,049	5,315	5,283	6,131
Potatoes, white 2/	6,201	7,126	6,693	6,517	5,857	7,103	5,714	3/	3/	3/
Pumpkin & squash	5,500	2,962	3,353	3,997	3,744	3,975	4,404	3/	3/	3/
Sauerkraut 2/	9,409	9,419	9,509	9,016	8,173	8,686	8,417	5,844	7,011	NA
Spinach 2/	6,304	7,108	6,214	8,121	6,314	5,458	3/	3/	3/	3/
Succotash 5/	168	209	142	771	828	777	3/	3/	3/	3/
Tomatoes	42,805	54,124	49,241	52,896	53,096	51,937	63,089	61,561	66,376	59,585
Tomato juice	32,155	27,844	33,920	31,517	27,617	17,507	23,955	3/	3/	3/
Tomato chili sauce	1,955	1,776	2,834	1,977	2,038	1,680	1,826	1665	1,965	2,086
Tomato puree	8,377	9,824	8,425	10,395	8,141	6,900	9,788	8,703	6/	6/
Total	283,682	300,260	303,834	334,211	288,263	277,633	284,884	220,637	232,551	226,876

NA = Not available.

1/ Basis 24/303's rounded to the nearest 1,000 cases. 2/ Pack beginning year shown. 3/ Discontinued to avoid disclosure. 4/ Included in okra. 5/ Single and triple. 6/ Total U.S. figure not available.

Source: "The Almanac," 1986.

Appendix table 5--U.S. frozen vegetable packs

Commodity	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
					1,000 metric tons					
Artichokes	1,026	752	165	812	446	768	644	488	745	545
Asparagus	10,773	10,194	6,998	10,881	5,095	5,121	7,692	6,169	6,849	9,067
Beans, green	81,335	104,440	119,408	119,333	106,679	112,580	129,289	116,045	117,956	127,674
Beans, Italian	5,259	7,215	7,560	8,715	7,645	7,005	9,233	9,051	10,281	11,118
Beans, wax	3,175	2,542	3,392	4,821	3,966	4,185	3,757	3,351	3,850	4,551
Beans, Lima	31,220	62,306	54,094	56,370	38,968	40,298	56,120	51,355	55,556	53,097
Beans, speck butter	4,278	3,591	5,719	1,758	2,061	3,915	4,076	2,969	3,584	3,026
Broccoli	91,406	142,610	125,429	135,453	131,842	139,144	152,190	129,438	165,911	161,847
Brussel sprouts	20,341	25,693	32,279	27,830	28,743	28,197	24,032	18,758	22,884	20,292
Carrots	82,227	119,646	108,145	119,333	86,706	122,402	134,574	96,390	115,933	115,480
Cauliflower	30,757	43,850	57,840	45,873	38,450	47,701	50,642	45,605	46,315	42,918
Celery	4,666	4,374	7,941	7,935	3,959	5,335	5,790	6,122	7,739	7,185
Collards	7,721	8,740	812	750	599	728	818	428	588	713
Corn, cut	128,093	118,287	137,511	140,910	122,713	142,422	206,712	166,595	146,956	163,431
Corn, on cob	85,087	120,287	139,291	122,210	117,286	138,525	171,746	133,334	158,608	192,021
Kale	2,085	2,955	2,451	1,650	1,947	2,172	2,144	1,313	1,513	2,344
Mixed vegetables	49,972	60,378	55,283	71,741	78,246	74,665	64,032	71,342	73,736	80,900
Mushrooms	2,693	4,747	4,013	6,438	6,672	10,013	10,634	11,131	11,094	13,004
Mustard greens	4,716	6,286	4,806	4,545	3,386	5,902	3,863	3,628	4,015	5,090
Okra	12,469	18,848	20,999	15,107	18,914	19,856	24,648	20,883	24,757	23,503
Onion rings	54,560	55,514	56,470	60,048	52,782	54,335	61,473	48,730	53,242	41,684
Onions, other	13,009	13,759	13,421	15,811	18,016	18,184	21,238	15,970	17,738	22,731
Peas, blackeye	14,229	16,354	16,775	9,571	9,495	15,152	18,805	10,399	12,795	14,368
Peas, green	154,399	151,482	162,260	193,896	143,146	151,452	183,631	160,792	192,208	220,443
Peas and carrots 1/	12,445	13,772	14,444	14,532	15,063	15,082	13,399	14,170	14,514	15,825
Peas and onions 1/	1,334	1,722	2,291	3,511	3,650	4,654	3,372	3,888	4,299	5,069
Peppers, green & red	3,832	6,494	5,440	4,836	6,970	7,324	5,870	11,124	11,606	9,490
Potato products	1,512,779	1,643,313	1,745,820	1,855,102	1,747,792	1,921,558	1,985,511	2,045,693	2,146,841	2,321,571
Pumpkin & squash	10,059	11,416	11,366	10,735	10,433	17,149	11,293	8,055	7,178	9,405
Rhubarb	3,734	3,913	2,203	3,583	3,830	2,941	3,070	1,543	2,391	3,015
Spinach	72,688	76,099	66,856	82,228	76,794	83,302	68,343	64,958	77,679	79,290
Squash, summer	16,047	18,869	19,879	17,304	16,664	21,243	29,565	28,458	30,149	30,599
Stew vegetables 1/	7,977	8,282	6,213	7,405	7,687	6,516	6,309	6,514	9,016	9,163
Succotash 1/	2,923	3,452	2,767	3,184	3,055	2,994	2,984	2,738	2,485	3,103
Sweet potatoes & yams	5,460	5,031	7,023	6,795	7,319	9,609	9,445	4,409	6,237	8,472
Turnip greens	6,558	7,787	6,230	7,234	4,856	5,906	4,445	5,409	4,672	6,553
Turnips	9,984	11,490	10,665	10,528	9,671	8,729	8,963	10,564	8,716	9,362
Miscellaneous	4,056	4,217	5,379	3,593	4,486	3,485	6,537	3,270	2,382	1,426
Total	2,493,655	2,833,101	2,968,640	3,111,819	2,838,331	3,156,098	3,416,793	3,242,427	3,478,968	3,735,315

1/ Products are repacked combinations of vegetables reported individually at first freezing. Repacks are not included in the total.

Source: "The Almanac," 1986.

Appendix table 6--U.S. canned fruit packs

Commodity	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
					1,000 cases 1/					
Apples 2/	1,566	1,703	2,089	2,414	1,648	1,317	1,586	1,553	3/	3/
Applesauce 2/	8,911	10,671	11,562	12,742	10,036	8,819	10,875	4/10,480	3/	3/
Apricots	2,387	2,269	2,127	2,887	2,994	1,208	1,626	1,167	1,861	1,532
Blackberries	57	37	53	10	17	38	47	46	3/	3/
Blueberries	168	77	181	96	78	327	289	167	3/	3/
Tart cherries	438	605	582	526	545	213	471	189	389	390
Sweet cherries	464	501	485	651	428	316	498	496	357	405
Cranberry sauce	3,469	3,397	3,670	3,618	3,633	3,542	3,562	3/	3/	3/
Fruit cocktail and mixed fruit	14,895	15,147	13,896	17,057	18,154	13,969	11,974	9,596	11,177	12,567
Grapefruit segments 4/	1,188	1,210	1,258	1,355	1,152	926	851	3/	3/	3/
Peaches	24,810	29,217	21,413	25,840	26,765	21,763	18,608	11,421	19,512	18,401
Pears	11,518	9,614	9,026	10,568	10,928	9,700	7,789	7,214	7,657	7,813
Pineapple 2/	17,270	18,424	18,349	18,545	17,057	16,640	3/	3/	3/	3/
Purple plums	1,042	817	923	711	1,066	940	375	443	577	642
Total	88,183	93,689	85,614	97,020	95,100	79,718	56,960	42,772	41,530	41,750

1/ Basis 24 2 1/2's rounded to nearest thousand cases. 2/ Pack beginning year shown. 3/ Discontinued to avoid disclosure. 4/ Florida. Pack beginning year shown.

Source: "The Almanac," 1986.

Appendix table 7--U.S. canned fruit juice packs 1/

Commodity	1976	1977	1978	1979	1980	1981	1982	1983	1984
					1,000 cases 2/				
Apples	10,920	12,906	17,137	18,237	18,863	18,728	18,732	3/	3/
Grapefruit 4/	19,105	18,202	17,371	16,307	13,082	15,230	8,029	6,555	7,271
Oranges 4/	9,960	10,922	12,576	12,289	11,849	9,852	6,754	6,260	5,117
Citrus blend 4/	1,093	1,342	986	1,045	736	556	448	382	424
Pineapple	7,041	8,264	7,822	8,408	9,391	9,237	3/	3/	3/
Total	48,119	51,636	55,892	56,286	53,921	53,603	5/	5/	5/

1/ Pack beginning year shown. 2/ Basis 24/2 1/2's rounded to nearest thousand cases. 3/ Discontinued to avoid disclosure. 4/ Florida only beginning in 1982. 5/ Not comparable with previous years because of significant discontinuation of data.

Source: "The Almanac," 1986.

Appendix Table 8--U.S. frozen fruit and berry packs

Commodity	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
					1,000 metric tons					
Apples	53,869	44,092	30,998	27,591	31,348	48,033	45,531	34,281	35,379	38,774
Apricots	6,808	7,144	5,359	7,684	4,722	6,172	7,605	6,385	7,514	5,339
Tart cherries	38,154	70,127	57,290	52,754	58,518	38,941	NA	NA	NA	NA
Sweet cherries	5,618	5,902	8,329	6,016	4,888	6,445	7,805	7,849	6,025	4,655
Grapes and pulp	782	2,219	2,054	1,027	988	1,316	3,829	4,539	1/	2,139
Peaches	29,530	31,445	18,513	28,355	25,526	27,040	25,725	25,608	34,418	31,874
Plums and prunes	2,258	1,630	1,258	2,562	2,810	1,972	2,554	1,200	1,559	1,996
Purees, noncitrus	7,335	7,635	7,411	5,557	4,043	5,955	9,194	7,334	7,097	11,184
Blackberries	10,330	10,592	8,881	6,724	9,468	7,710	7,386	6,614	5,049	5,752
Blueberries	11,912	6,691	12,697	14,282	16,523	22,744	21,076	19,744	24,873	24,724
Boysenberries	1,857	1,740	1,383	1,239	2,122	1,645	2,314	1,610	1,598	1,162
Currants	509	347	297	215	209	150	1/	1/	1/	1/
Loganberries	1,075	1,554	948	579	864	704	755	1,008	462	352
Olallie berries	1/	1/	1,309	1,398	1,654	170	1/	1/	1/	1/
Black raspberries	780	801	659	1,772	1,264	1,528	1,960	533	605	449
Red raspberries	9,453	10,533	8,955	8,896	8,455	10,347	10,159	8,473	8,313	6,257
Strawberries	98,047	99,969	72,501	86,443	114,793	95,509	123,686	132,751	104,969	103,943
Miscellaneous	6,776	9,387	7,267	7,664	8,188	7,539	9,074	2,558	17,164	7,325
Total	285,093	311,808	246,109	260,758	296,383	283,920	278,653	260,487	255,025	245,925

NA = Not available.

1/ Included in miscellaneous.

Source: "The Almanac," 1986.

Appendix Table 9--U.S. frozen concentrated citrus juice and noncitrus concentrate and juice packs

Commodity	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
					1,000 liters					
Citrus: 1/										
Oranges	598,225	610,218	655,075	875,400	660,692	504,571	641,917	458,851	448,464	NA
Grapefruit	42,616	51,830	53,915	73,600	78,596	82,783	54,824	73,024	96,118	NA
Tangerines	3,505	6,325	5,175	8,108	4,448	3,498	1,264	2,408	1,079	NA
Limeade	4,815	7,014	9,933	7,007	NA	NA	NA	NA	NA	NA
Noncitrus 2/	9,509	11,368	22,731	20,214	23,890	69,924	90,009	98,504	109,337	78,835

NA = Not available.

1/ Season beginning year shown. Concentrates were reported on a 45 degree Brix basis in 1976-1979; on a 43-40 degree basis in 1980-1981; and on a 42 degree Brix basis in 1981-1985. 2/ Calendar year.

Source: "The Almanac," 1986.

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity

Time period: Schedule B commodity Partner	1978	1979	1980	1981
Total selected commodities				
WESTERN EUROPE:				
EC-10:				
Ireland	0	0	0	0
Italy	0	0	0	0
OTHER W. EUROPE:				
Cyprus	0	403,449 lb	0	0
Finland	0	15,501,198 lb	0	0
Gibraltar	102,908 lb	18,360 lb	55,728 lb	16,111 lb
Malta and Gozo	0	0	48,723 lb	0
Portugal	0	0	1,802,011 lb	721,803 lb
Spain	0	0	0	31,939,261 lb
Turkey	376 ssg	200 ssg	1,269 ssg	2,000 lb
Yugoslavia	0	0	161 wg	0
ASIA:				
Bangladesh	316 wg	522 wg	475 wg	0
Brunei	0	0	0	33,994 lb
Burma	442 wg	472 wg	384 wg	68 wg
China	0	305,976 lb	0	0
India	0	0	0	0
Iraq	0	359,700 lb	0	0
Jordan	0	0	0	0
Lebanon	0	0	0	0
Macao	0	0	0	0
Nepal	2,900 lb	850 lb	0	9,822 lb
Pakistan	0	0	0	0
Sri Lanka (Ceylon)	358 wg	0	828 wg	1,623 wg
Syria	0	864,465 lb	0	0
Yemen (Aden) (S Yemen)	0	0	0	0
Yemen (Sana)	6,707 lb	0	0	33,000 lb
ANGOLA	0	4,080 lb	7,942 lb	0
1381000--Carrots, frozen				
CANADA	5,966,326 lb	7,058,012 lb	6,752,483 lb	12,420,654 lb
LATIN AMERICA:				
CENTRAL AMERICA:				
MEXICO	144,140 lb	478,353 lb	75,398 lb	70,376 lb
ALL OTHER	363,101 lb	269,526 lb	206,869 lb	229,903 lb
TOTAL	507,241 lb	747,879 lb	282,267 lb	300,279 lb
SOUTH AMERICA	103,400 lb	2,880 lb	160,861 lb	249,254 lb
TOTAL	610,641 lb	750,759 lb	443,128 lb	549,533 lb

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity

Time period: Schedule B commodity Partner	1982	1983	1984	1985
Total selected commodities				
WESTERN EUROPE:				
EC-10:				
Ireland	0	0	0	0
Italy	0	0	0	30,067,187 lb
OTHER W. EUROPE:				
Cyprus	139,612 lb	0	789,050 lb	433,638 lb
Finland	0	0	0	0
Gibraltar	10,520 lb	52,852 lb	7,650 lb	0
Malta and Gozo	33,289 lb	35,407 lb	6,650 lb	42,310 lb
Portugal	2,045,473 lb	0	0	221,765 lb
Spain	0	21,268,811 lb	0	30,558,666 lb
Turkey	2,293 ssg	1,529 ssg	0	0
Yugoslavia	199 lb	40,013 lb	0	34,000 lb
ASIA:				
Bangladesh	0	6,650 lb	83,152 lb	11,400 lb
Brunei	8,460 lb	0	0	0
Burma	223 wg	0	0	0
China	0	0	37,622 lb	27,900 lb
India	0	3,803,584 lb	0	8,522,431 lb
Iraq	0	0	0	0
Jordan	0	0	0	832,763 lb
Lebanon	0	0	0	0
Macao	0	849 ssg	0	0
Nepal	20,091 lb	21,250 lb	6,925 lb	335,576 lb
Pakistan	2,450 lb	0	0	0
Sri Lanka (Ceylon)	252 wg	180 wg	0	2,984 lb
Syria	1,913,391 lb	1,014,781 lb	44,300 lb	357,750 lb
Yemen (Aden) (S Yemen)	0	0	59,189 lb	0
Yemen (Sana)	32,440 lb	57,428 lb	0	10,080 lb
ANGOLA	0	15,895 lb	0	0
1381000--Carrots, frozen				
CANADA	7,110,647 lb	2,933,008 lb	2,677,125 lb	2,454,685 lb
LATIN AMERICA:				
CENTRAL AMERICA:				
MEXICO	0	0	7,238 lb	36,888 lb
ALL OTHER	206,801 lb	349,583 lb	366,081 lb	218,999 lb
TOTAL	206,801 lb	349,583 lb	373,319 lb	255,887 lb
SOUTH AMERICA	110,706 lb	7,158 lb	0	0
TOTAL	317,507 lb	356,741 lb	373,319 lb	255,887 lb

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity

Schedule B commodity Partner Time period:	1986	1987	January-February 1987	 1988
Total selected commodities				
WESTERN EUROPE:				
EC-10:				
Ireland	0	0	0	309,555 lb
Italy	0	0	0	0
OTHER W. EUROPE:				
Cyprus	374,793 lb	90,964 lb	35,367 lb	140,000 lb
Finland	0	0	0	1,135,490 lb
Gibraltar	7,250 lb	0	0	0
Malta and Gozo	183,072 lb	79,325 lb	0	0
Portugal	0	0	218,244 lb	106,309 lb
Spain	0	0	1,759,314 lb	2,583,044 lb
Turkey	0	0	0	211,642 lb
Yugoslavia	0	0	0	0
ASIA:				
Bangladesh	0	34,000 lb	0	0
Brunei	0	0	0	10,978 lb
Burma	0	0	0	0
China	76,175 lb	0	2,400 lb	0
India	4,973,703 lb	0	2,290,190 lb	585,534 lb
Iraq	238,000 lb	132,245 ssg	0	0
Jordan	0	0	67,677 lb	0
Lebanon	809,359 lb	0	57,552 lb	102,000 lb
Macao	0	0	0	0
Nepal	205,425 lb	207,725 lb	0	85,850 lb
Pakistan	18,196 gal	3,234 gal	0	7,158 gal
Sri Lanka (Ceylon)	0	2,200 lb	0	2,200 lb
Syria	34,000 lb	187,741 lb	0	106,250 lb
Yemen (Aden) (S Yemen)	0	0	0	0
Yemen (Sana)	0	0	0	0
ANGOLA	13,643 lb	0	17,339 lb	0
1381000--Carrots, frozen				
CANADA	2,648,256 lb	2,609,269 lb	362,292 lb	343,471 lb
LATIN AMERICA:				
CENTRAL AMERICA:				
MEXICO	15,930 lb	0	0	0
ALL OTHER	773,963 lb	744,885 lb	301,302 lb	0
TOTAL	789,893 lb	744,885 lb	301,302 lb	0
SOUTH AMERICA	58,334 lb	0	0	0
TOTAL	848,227 lb	744,885 lb	301,302 lb	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period: Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1381000--Carrots, frozen						
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	0	93,000	0	0	0	0
Germany, West	0	25,438	0	20,071	0	0
Ireland	0	0	0	0	43,121	0
Netherlands	0	0	0	31,594	0	0
United Kingdom	0	41,141	0	800,380	400,400	0
Total	0	159,579	0	852,045	443,521	0
OTHER W. EUROPE:						
Austria	0	0	0	80,000	0	0
Finland	0	0	0	0	0	0
Iceland	129,324	117,348	0	0	0	0
Norway	0	0	33,600	0	0	0
Portugal	0	22,335	0	0	0	0
ASIA:						
Bahrain	14,055	6,000	8,473	6,000	0	10,163
Brunei	0	0	0	0	0	1,800
Hong Kong	56,760	359,766	151,063	59,897	45,416	45,188
Indonesia	0	0	5,400	0	0	0
Japan	6,302,496	8,558,765	11,122,449	4,783,879	4,061,091	3,216,942
Kuwait	33,984	0	0	0	0	0
Malaysia	1,440	1,920	0	0	1,196	0
Philippines	0	0	0	0	41,075	0
Qatar	0	0	0	0	0	0
Saudi Arabia	35,240	25,420	16,900	29,427	29,459	21,649
Singapore	9,600	11,980	6,768	11,282	20,237	45,521
Taiwan	0	0	0	26,042	0	0
United Arab Emirates	61,444	32,864	26,663	20,500	0	0
Total	6,515,019	8,996,715	11,337,716	4,937,027	4,198,474	3,341,263
MIDDLE EAST	144,723	64,284	52,036	55,927	29,459	31,812
OCEANIA:						
AUSTRALIA	20,160	738,011	130,050	59,523	0	0
ALL OTHER	0	15,208	14,211	8,456	8,000	0
Total	20,160	753,219	144,261	67,979	8,000	0
AFRICA:						
ANGOLA	0	0	0	0	0	0
ALL OTHER	4,897	0	0	11,015	7,195	0
Total	4,897	0	0	11,015	7,195	0
1382000--Corn, sweet, frozen						
CANADA	2,895,225	6,939,896	3,515,058	2,777,014	5,182,744	3,398,803

Continued--

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Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner — Time period	1984	1985	1986	1987	January-February 1987	January-February 1988
1381000--Carrots, frozen						
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	0	0	0	0	0	0
Germany, West	0	0	0	0	0	0
Ireland	0	264,000	0	17,500	0	0
Netherlands	0	0	0	0	0	0
United Kingdom	0	264,000	31,372	201,600	0	36,000
Total	0	528,000	31,372	219,100	0	36,000
OTHER W. EUROPE:						
Austria	0	0	0	0	0	0
Finland	0	0	0	428,674	0	0
Iceland	0	0	17,728	0	0	0
Norway	0	0	0	0	0	0
Portugal	0	0	0	0	0	0
ASIA:						
Bahrain	0	0	0	0	0	0
Brunei	0	0	0	0	0	0
Hong Kong	20,412	0	0	73,715	0	150,000
Indonesia	0	0	0	0	0	0
Japan	4,924,180	2,264,810	2,368,653	3,198,954	256,676	1,070,508
Kuwait	0	0	0	98,000	0	0
Malaysia	2,568	0	0	0	0	0
Philippines	0	0	0	0	0	0
Qatar	145,400	0	0	0	0	0
Saudi Arabia	38,719	2,500	0	0	0	0
Singapore	16,688	0	0	0	0	0
Taiwan	0	0	0	0	0	0
United Arab Emirates	48,000	0	48,000	858,152	48,000	95,000
Total	5,195,967	2,267,310	2,416,653	4,228,821	304,676	1,315,508
MIDDLE EAST	232,119	2,500	48,000	956,152	48,000	95,000
OCEANIA:						
AUSTRALIA	6,916	23,270	21,760	12,500	0	0
ALL OTHER	3,824	0	0	0	0	0
Total	10,740	23,270	21,760	12,500	0	0
AFRICA:						
ANGOLA	0	0	0	54,242	0	0
ALL OTHER	1,390	0	0	46,875	0	0
Total	1,390	0	0	101,117	0	0
1382000--Corn, sweet, frozen						
CANADA	4,073,770	4,965,615	7,358,161	5,939,016	313,362	1,575,310

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1382000--Corn, sweet, frozen						
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	245,600	660,547	459,808	288,943	204,143	37,896
ALL OTHER	239,772	313,553	302,131	481,291	506,197	416,495
TOTAL	485,372	974,100	761,939	770,234	710,340	454,391
SOUTH AMERICA	56,138	174,925	90,124	89,045	229,052	556,140
TOTAL	541,510	1,149,025	852,063	859,279	939,392	1,010,531
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	5,776	0	0	0	1,537,920	1,581,800
Denmark	292,264	241,179	274,556	411,130	0	0
France	0	305,202	165,000	222,406	641,541	178,129
Germany, West	341,180	526,769	277,673	283,119	497,331	368,554
Ireland	1,760	106,818	277,746	462,087	1,374,502	544,152
Italy	4,320	0	0	17,800	0	4,896
Netherlands	0	82,096	0	1,120	39,200	0
United Kingdom	3,754,810	5,789,879	5,936,491	4,897,584	5,825,688	6,188,786
Total	4,400,110	7,051,943	6,931,466	6,295,246	9,916,182	8,866,317
OTHER W. EUROPE:						
Austria	0	0	0	18,876	0	0
Finland	48,600	39,985	0	0	0	0
Iceland	39,985	67,740	217,142	279,910	306,914	318,598
Malta and Gozo	0	13,800	0	0	0	0
Norway	38,243	719,068	687,457	560,100	160,000	40,000
Spain	2,432,797	0	0	0	0	0
Sweden	210,605	3,417,850	931,980	1,645,664	1,733,976	1,591,647
Switzerland	238,260	0	0	74,000	0	0
ASIA:						
Bahrain	22,623	17,036	15,671	17,782	49,345	60,488
Hong Kong	815,834	755,757	469,386	345,891	343,844	161,750
Indonesia	0	0	79,365	0	0	2,050
Iran	41,427	6,960	0	0	0	0
Israel	0	0	0	39,200	900	0
Japan	29,573,190	39,911,108	57,992,713	55,904,295	46,461,368	55,436,246
Jordan	0	0	0	0	0	0
Korea, South	2,346,926	3,914	79,970	0	0	6,000
Kuwait	26,207	32,289	3,400	49,796	41,683	42,422
Malaysia	4,300	1,800	8,812	13,350	50,168	7,903
Oman	0	0	0	0	0	11,428
Pakistan	0	0	0	4,480	0	0
Qatar	7,901	3,226	0	2,229	2,400	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1984	1985	1986	1987	January-February 1987	January-February 1988
1382000--Corn, sweet, frozen						
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	26,942	14,041	83,208	257,542	60,498	10,500
ALL OTHER	365,916	211,073	785,289	403,278	38,610	118,620
TOTAL	392,858	225,114	868,497	660,820	99,108	129,120
SOUTH AMERICA	80,112	551,179	264,667	0	0	0
TOTAL	472,970	776,293	1,133,164	660,820	99,108	129,120
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	24,650	0	0	471,850	0	0
Denmark	111,829	0	45,063	44,550	0	86,015
France	0	0	0	0	0	406,725
Germany, West	547,293	819,598	1,109,667	282,158	0	135,000
Ireland	829,106	1,001,951	697,970	513,929	127,338	191,346
Italy	0	0	0	0	0	0
Netherlands	0	26,670	27,824	112,279	0	0
United Kingdom	7,181,413	7,369,328	8,096,785	4,649,667	1,211,777	962,983
Total	8,694,291	9,217,547	9,977,309	6,074,433	1,339,115	1,782,069
OTHER W. EUROPE:						
Austria	0	0	0	0	0	0
Finland	0	0	89,100	536,450	222,750	135,000
Iceland	413,534	206,951	278,199	399,392	79,970	39,985
Malta and Gozo	0	0	0	0	0	0
Norway	86,292	86,653	137,544	178,200	0	47,700
Spain	0	112,135	0	117,150	0	0
Sweden	1,402,150	0	707,465	1,092,667	286,697	448,690
Switzerland	42,090	42,090	0	92,837	0	0
ASIA:						
Bahrain	62,356	15,155	63,824	23,570	0	0
Hong Kong	419,027	729,790	556,881	1,159,064	105,000	230,851
Indonesia	2,975	7,275	37,259	0	0	0
Iran	0	0	0	0	0	0
Israel	0	0	0	262,735	0	581,092
Japan	49,515,350	48,408,755	66,858,329	62,322,881	8,025,036	11,327,098
Jordan	0	0	0	0	0	19,138
Korea, South	0	0	93,204	0	0	52,800
Kuwait	66,700	76,904	147,173	115,310	22,710	88,171
Malaysia	15,770	0	0	5,550	5,550	0
Oman	36,369	39,861	6,021	28,562	7,500	0
Pakistan	0	0	0	0	0	0
Qatar	0	0	0	0	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period: Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1382000--Corn, sweet, frozen						
Saudi Arabia	82,585	184,284	369,780	389,901	213,256	165,444
Singapore	83,155	114,228	102,849	231,844	286,440	404,866
Taiwan	18,797	0	6,000	0	1,980	41,000
United Arab Emirates	12,846	35,715	34,883	89,513	24,240	65,663
Total	33,035,791	41,066,317	59,162,829	57,088,281	47,475,624	56,405,260
MIDDLE EAST	193,589	279,510	423,734	588,421	331,824	345,445
OCEANIA:						
AUSTRALIA	2,371,101	3,040,457	4,302,507	8,740,062	7,748,574	10,691,582
ALL OTHER	47,295	9,610	13,644	23,830	24,289	25,941
Total	2,418,396	3,050,067	4,316,151	8,763,892	7,772,863	10,717,523
AFRICA:						
ALL OTHER	3,360	0	2,382	0	5,275	0
Total	3,360	0	2,382	0	5,275	0
1383000--Peas, frozen						
CANADA	1,589,786	1,040,755	1,311,046	1,784,638	1,437,964	1,460,547
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	159,188	22,250	205,726	76,071	29,271	3,759
ALL OTHER	1,259,450	1,512,801	963,957	34,448	470,607	239,700
TOTAL	1,418,638	1,535,051	1,169,683	110,519	499,878	243,459
SOUTH AMERICA	727,137	618,299	1,203,140	242,554	1,023,205	496,796
TOTAL	2,145,775	2,153,350	2,372,823	353,073	1,523,083	740,255
WESTERN EUROPE:						
EC-10:						
Denmark	0	0	0	0	0	0
France	0	0	0	78,000	0	0
Germany, West	0	64,295	56,577	0	0	0
Greece	0	0	5,600	1,600	0	0
Italy	0	0	0	40,000	0	0
Netherlands	0	0	39,292	0	0	0
United Kingdom	223,129	140,000	119,985	597,170	2,279	26,746
Total	223,129	204,295	221,454	716,770	2,279	26,746
OTHER W. EUROPE:						
Austria	0	0	0	0	0	0
Iceland	0	0	75,645	1,950	0	0
Norway	0	0	435,684	101,650	0	0
Portugal	13,945	6,700	0	0	0	0
Spain	0	0	349,960	39,000	0	0
Sweden	111,600	0	0	0	0	0
ASIA:						
Bahrain	34,448	29,163	0	30,553	18,599	11,906
Brunei	0	0	0	0	0	2,760

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period: Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1382000--Corn, sweet, frozen						
Saudi Arabia	100,032	83,381	127,650	180,374	0	50,386
Singapore	311,047	411,277	199,581	89,123	11,700	0
Taiwan	0	428,444	19,110	877,318	0	129,174
United Arab Emirates	22,761	62,817	198,078	153,677	0	0
Total	50,552,387	50,263,659	68,307,110	65,218,164	8,177,496	12,478,710
MIDDLE EAST	288,218	278,118	542,746	764,228	30,210	738,787
OCEANIA:						
AUSTRALIA	11,616,674	10,277,405	9,528,178	8,375,754	1,305,092	1,529,161
ALL OTHER	25,869	22,600	14,260	44,839	5,175	9,027
Total	11,642,543	10,300,005	9,542,438	8,420,593	1,310,267	1,538,188
AFRICA:						
ALL OTHER	0	4,500	0	0	0	0
Total	0	4,500	0	0	0	0
1383000--Peas, frozen						
CANADA	2,588,634	294,566	706,987	690,597	58,184	230,500
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	13,750	139,354	110,683	69,600	0	0
ALL OTHER	42,134	123,819	320,278	370,037	77,236	159,492
TOTAL	55,884	263,173	430,961	439,637	77,236	159,492
SOUTH AMERICA	1,485,207	2,476,113	2,304,503	1,593,085	0	427,000
TOTAL	1,541,091	2,739,286	2,735,464	2,032,722	77,236	586,492
WESTERN EUROPE:						
EC-10:						
Denmark	0	0	0	0	0	105,600
France	0	0	0	0	0	0
Germany, West	0	0	0	0	0	1,073,600
Greece	0	0	0	0	0	0
Italy	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0
United Kingdom	51,890	2,520	103,908	84,417	22,000	1,770,912
Total	51,890	2,520	103,908	84,417	22,000	2,950,112
OTHER W. EUROPE:						
Austria	0	39,690	0	0	0	0
Iceland	0	0	39,200	0	0	0
Norway	0	0	0	0	0	0
Portugal	0	0	0	0	0	0
Spain	0	0	0	0	0	0
Sweden	0	0	0	1,381,990	0	860,250
ASIA:						
Bahrain	25,559	0	0	0	0	0
Brunei	0	0	0	0	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1383000--Peas, frozen						
Hong Kong	3,012,818	3,256,756	3,829,283	1,655,900	1,817,228	1,359,788
India	0	0	0	0	4,464,978	0
Indonesia	47,308	14,548	186,109	5,600	0	6,026
Iran	6,000	0	0	0	0	0
Israel	0	40,500	0	0	18,120	0
Japan	15,557,368	9,030,785	16,771,315	20,361,274	8,722,324	11,731,980
Jordan	0	0	0	0	0	3,441
Korea, South	294	2,400	0	0	3,600	1,202
Kuwait	0	6,845	4,233	0	0	39,000
Malaysia	0	0	0	193,324	225,893	117,000
Oman	0	0	0	0	0	2,092
Philippines	256,515	4,821	87,671	80,039	238,633	158,313
Qatar	12,204	7,366	0	0	0	0
Saudi Arabia	37,483	138,459	92,100	177,643	188,263	104,935
Singapore	162,635	19,550	229,271	567,015	171,413	6,735
Taiwan	249,286	13,736	96,583	54,985	57,000	18,000
Thailand	0	0	1,500	3,000	1,125	0
United Arab Emirates	13,962	19,693	99,350	29,316	7,972	0
Total	19,390,321	12,584,622	21,407,415	23,158,649	15,935,148	13,563,178
MIDDLE EAST	104,097	242,026	195,683	237,512	232,954	161,374
OCEANIA:						
AUSTRALIA	0	19,845	0	5,972,739	924,560	3,878,691
ALL OTHER	32,821	44,818	22,590	18,959	57,748	59,222
Total	32,821	64,663	22,590	5,991,698	982,308	3,937,913
AFRICA:						
ALL OTHER	2,138	67,128	1,948	1,290,735	5,275	0
Total	2,138	67,128	1,948	1,290,735	5,275	0
1384100--Potatoes, french fries, frozen						
CANADA	1,629,978	1,124,934	231,020	310,824	144,086	390,300
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	201,510	229,260	301,246	1,031,526	587,171	42,975
ALL OTHER	2,423,324	2,223,498	3,937,460	4,272,023	4,424,589	5,319,104
TOTAL	2,624,834	2,452,758	4,238,706	5,303,549	5,011,760	5,362,079
SOUTH AMERICA	461,700	530,947	758,363	1,957,135	1,655,699	528,367
TOTAL	3,086,534	2,983,705	4,997,069	7,260,684	6,667,459	5,890,446
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	150,000	0	0	0	5,989	236,100
France	0	0	0	600	0	0
Germany, West	214,786	114,300	6,540	31,568	0	74,792
Netherlands	101,894	1,736,187	0	0	69,780	63,530

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period: Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1383000--Peas, frozen						
Hong Kong	919,960	641,879	719,559	868,574	138,578	293,484
India	12,500	0	1,230,271	2,364,669	1,774,045	0
Indonesia	7,500	11,900	3,300	0	0	0
Iran	0	0	0	0	0	0
Israel	0	0	0	0	0	0
Japan	8,920,457	11,269,276	19,739,137	16,421,315	1,852,234	3,480,822
Jordan	0	0	0	0	0	5,360
Korea, South	21,906	47,485	119,955	40,675	0	37,675
Kuwait	0	0	0	0	0	0
Malaysia	3,000	0	52,250	0	0	0
Oman	10,250	24,783	0	0	0	0
Philippines	39,985	0	1,414	0	0	0
Qatar	0	0	0	0	0	0
Saudi Arabia	29,217	13,875	23,026	2,490	0	0
Singapore	83,209	17,985	159,630	246,022	38,952	0
Taiwan	30,316	52,500	43,500	697,179	0	28,935
Thailand	0	0	0	0	0	0
United Arab Emirates	0	0	19,853	0	0	0
Total	10,103,859	12,079,683	22,111,895	20,640,924	3,803,809	3,846,276
MIDDLE EAST	65,026	38,658	42,879	2,490	0	5,360
OCEANIA:						
AUSTRALIA	5,849,555	820,792	456,546	2,807,674	0	0
ALL OTHER	12,915	9,600	8,670	2,550	0	0
Total	5,862,470	830,392	465,216	2,810,224	0	0
AFRICA:						
ALL OTHER	0	0	0	0	0	0
Total	0	0	0	0	0	0
1384100--Potatoes,french fries,frozen						
CANADA	467,910	916,258	1,293,183	1,324,112	678,237	180,600
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	266,964	245,508	224,953	139,516	0	5,333
ALL OTHER	3,569,656	891,065	1,733,502	1,510,338	273,099	418,107
TOTAL	3,836,620	1,136,573	1,958,455	1,649,854	273,099	423,440
SOUTH AMERICA	0	0	0	0	0	0
TOTAL	3,836,620	1,136,573	1,958,455	1,649,854	273,099	423,440
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	0	0	0	0	0	0
France	0	0	0	0	0	0
Germany, West	2,158,696	44,599	54,032	668,736	0	0
Netherlands	174,948	515,916	23,243	199,260	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1384100--Potatoes,french fries,frozen						
United Kingdom	110,430	3,250,976	2,090,400	0	2,011,490	0
Total	577,110	5,101,463	2,096,940	32,168	2,087,259	374,422
OTHER W. EUROPE:						
Finland	0	24,360	54,000	30,240	0	0
Iceland	112,200	303,028	31,950	0	1,462	0
Spain	0	0	36,750	75,394	0	0
Sweden	393,335	309,204	189,513	74,405	73,210	518,400
Switzerland	0	0	0	0	0	20,950
ASIA:						
Bahrain	67,183	124,683	12,400	73,282	111,134	29,944
Brunei	0	0	0	0	0	1,647
China	0	0	0	0	0	0
Hong Kong	2,447,606	3,867,085	5,709,850	6,508,048	7,251,727	8,240,124
India	0	0	0	0	0	39,000
Indonesia	4,934	43,874	549,433	331,010	292,738	887,201
Israel	0	4,800	0	0	50,872	18,060
Japan	32,393,135	39,215,087	55,708,060	66,615,708	71,788,177	82,121,425
Jordan	0	0	0	0	0	0
Korea, South	25,882	58,172	233,120	193,117	315,988	577,193
Kuwait	116,374	13,000	41,500	82,195	346,020	396,932
Malaysia	177,700	239,183	429,678	672,409	949,477	1,503,467
Oman	0	0	19,680	8,820	21,016	0
Philippines	0	19,500	53,380	48,000	36,300	81,841
Qatar	12,026	5,640	11,708	4,687	0	49,795
Saudi Arabia	145,917	500,226	446,535	1,063,223	613,475	576,135
Singapore	491,922	1,024,609	1,626,790	2,420,038	3,772,649	3,591,571
Taiwan	0	0	0	0	114,450	35,100
Thailand	37,780	3,846	75,150	2,170	2,675	3,652
United Arab Emirates	51,332	67,081	177,409	273,110	309,635	191,687
Total	35,971,791	45,186,786	65,094,693	78,295,817	85,976,333	98,344,774
MIDDLE EAST	392,832	715,430	709,232	1,505,317	1,452,152	1,262,553
OCEANIA:						
AUSTRALIA	0	0	0	18,000	0	24,582
NEW ZEALAND	0	0	2,905	1,683	0	35,020
ALL OTHER	235,515	245,584	588,615	608,525	344,642	448,488
Total	235,515	245,584	591,520	628,208	344,642	508,090
AFRICA:						
ANGOLA	0	0	0	0	0	0
ALL OTHER	18,324	1,920	4,128	3,612	7,200	3,533
Total	18,324	1,920	4,128	3,612	7,200	3,533

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period: Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1384100--Potatoes,french fries,frozen:						
United Kingdom	0	36,288	35,840	204,160	0	45,238
Total	2,333,644	596,803	113,115	1,072,156	0	45,238
OTHER W. EUROPE:						
Finland	227,355	0	0	0	0	0
Iceland	29,991	4,400	0	0	0	0
Spain	0	0	0	0	0	0
Sweden	1,789,486	38,428	222,750	0	0	0
Switzerland	0	0	0	0	0	0
ASIA:						
Bahrain	131,730	118,800	72,630	108,540	36,180	44,028
Brunei	1,500	0	0	0	0	0
China	900	0	0	18,699	0	0
Hong Kong	7,359,276	8,211,661	10,686,012	12,023,781	1,676,659	2,067,723
India	0	0	0	0	0	0
Indonesia	1,165,257	625,272	958,351	418,363	41,250	303,210
Israel	0	0	0	0	0	0
Japan	94,786,011	105,718,459	144,818,870	177,605,249	24,731,124	28,152,862
Jordan	0	3,861	0	0	0	0
Korea, South	865,510	1,220,347	367,370	80,850	22,500	43,474
Kuwait	515,244	219,300	36,180	1,165,104	397,980	176,112
Malaysia	1,870,252	2,220,759	2,424,999	3,117,376	474,449	639,565
Oman	67,217	56,316	15,450	27,000	12,600	0
Philippines	0	0	0	448,350	0	248,670
Qatar	10,700	0	13,640	72,360	36,180	42,516
Saudi Arabia	634,209	387,516	175,527	1,112,895	144,720	174,600
Singapore	5,752,137	5,512,845	6,616,659	6,973,121	887,143	1,212,937
Taiwan	44,010	160,446	1,179,653	4,136,277	344,182	963,776
Thailand	2,655	0	0	35,700	0	0
United Arab Emirates	675,172	416,150	141,567	637,442	180,900	168,535
Total	113,881,780	124,871,732	167,506,908	207,981,107	28,985,867	34,238,008
MIDDLE EAST	2,034,272	1,201,943	454,994	3,123,341	808,560	605,791
OCEANIA:						
AUSTRALIA	2,400	0	25,050	116,208	0	0
NEW ZEALAND	60,895	0	0	0	0	0
ALL OTHER	504,317	110,834	582,706	839,026	135,800	124,336
Total	567,612	110,834	607,756	955,234	135,800	124,336
AFRICA:						
ANGOLA	0	0	10,620	0	0	0
ALL OTHER	0	21,480	43,323	0	0	0
Total	0	21,480	53,943	0	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period: Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1384500--Potatoes,ex french fries,frz:						
CANADA	3,556,457	5,626,634	4,804,241	6,974,620	4,305,253	6,255,287
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	252,164	174,995	51,726	336,178	193,136	79,099
ALL OTHER	526,427	1,500,978	1,528,056	1,206,612	1,346,097	1,335,958
TOTAL	778,591	1,675,973	1,579,782	1,542,790	1,539,233	1,415,057
SOUTH AMERICA	82,379	123,074	1,157	150,914	243,873	79,596
TOTAL	860,970	1,799,047	1,580,939	1,693,704	1,783,106	1,494,653
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	0	0	0	0	0	0
Denmark	10,323	0	0	0	0	0
France	0	0	70,921	0	0	0
Germany, West	504,059	81,652	0	4,160	808	85,600
Netherlands	0	0	12,348	0	1,959	0
United Kingdom	122,400	0	39,679	1,444	160,000	201,375
Total	636,782	81,652	122,948	5,604	162,767	286,975
OTHER W. EUROPE:						
Finland	0	0	202,701	81,580	0	0
Iceland	1,662	0	45,000	34,883	9,726	0
Malta and Gozo	0	10,640	0	0	0	8,050
Norway	0	0	3,534	40,000	0	0
Spain	569	0	40,000	0	0	0
Sweden	537,759	967,168	631,449	1,024,515	868,000	209,250
ASIA:						
Bahrain	43,353	23,686	63,030	85,374	74,677	14,370
China	0	0	0	0	0	0
Hong Kong	230,020	73,150	0	281,378	997,106	125,350
Indonesia	18,295	0	0	0	279,758	255,033
Japan	4,561,940	2,459,534	2,814,608	4,228,423	4,238,820	5,745,641
Korea, South	26,200	34,300	5,865	1,800	69,962	35,505
Kuwait	65,788	30,304	0	40,898	106,822	0
Malaysia	0	15,000	9,000	2,600	60,600	45,875
Oman	3,297	0	0	0	831	0
Philippines	0	0	738	0	0	78,672
Qatar	0	0	5,170	4,870	0	0
Saudi Arabia	282,518	163,120	392,912	557,915	540,166	9,504
Singapore	167,676	48,954	346,561	465,617	399,848	323,878
Taiwan	0	0	0	0	0	0
Thailand	8,100	6,900	37,940	0	0	0
United Arab Emirates	56,161	4,875	0	107,760	111,417	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1984	1985	1986	1987	January-February 1987	January-February 1988
1384500--Potatoes,ex french fries,frz						
CANADA	5,075,730	7,422,170	6,943,054	7,609,718	333,986	811,458
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	77,410	30,314	246,373	81,581	5,306	45,726
ALL OTHER	1,640,702	465,368	6,265,577	9,964,039	1,435,519	2,792,938
TOTAL	1,718,112	495,682	6,511,950	10,045,620	1,440,825	2,838,664
SOUTH AMERICA	13,633	280,000	0	0	0	0
TOTAL	1,731,745	775,682	6,511,950	10,045,620	1,440,825	2,838,664
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	20,000	0	0	0	0	0
Denmark	0	7,500	0	0	0	0
France	0	0	0	0	0	0
Germany, West	0	0	0	0	0	0
Netherlands	0	0	18,000	37,500	0	0
United Kingdom	73,095	129,749	421,352	240,713	4,040	57,660
Total	93,095	137,249	439,352	278,213	4,040	57,660
OTHER W. EUROPE:						
Finland	0	0	0	0	0	0
Iceland	0	2,427	2,629	0	0	0
Malta and Gozo	0	0	0	0	0	0
Norway	0	0	0	0	0	0
Spain	0	0	0	0	0	0
Sweden	0	0	0	2,400	0	0
ASIA:						
Bahrain	0	0	0	1,500	0	0
China	0	0	0	19,952	0	0
Hong Kong	205,908	631,594	925,663	986,212	79,299	27,068
Indonesia	9,450	0	0	0	0	0
Japan	7,654,921	8,755,407	7,898,509	13,292,333	2,166,551	2,095,472
Korea, South	41,742	101,229	80,861	126,981	11,700	3,600
Kuwait	0	0	0	0	0	0
Malaysia	3,600	0	43,125	39,000	0	0
Oman	0	0	0	0	0	0
Philippines	2,038	0	0	0	0	0
Qatar	0	0	0	0	0	0
Saudi Arabia	136,080	0	21,099	60,011	0	0
Singapore	139,712	297,718	381,665	422,124	15,612	211,710
Taiwan	0	3,675	16,821	41,249	0	47,812
Thailand	0	0	0	0	0	0
United Arab Emirates	0	0	0	0	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner — Time period	1978	1979	1980	1981	1982	1983
1384500--Potatoes,ex french fries,frz:						
Total	5,463,348	2,859,823	3,675,824	5,776,635	6,880,007	6,633,828
MIDDLE EAST	451,117	221,985	461,112	796,817	833,913	23,874
OCEANIA:						
AUSTRALIA	0	0	0	0	0	0
NEW ZEALAND	0	0	2,315	0	0	42,677
ALL OTHER	11,248	28,227	104,348	91,744	84,620	99,165
Total	11,248	28,227	106,663	91,744	84,620	141,842
AFRICA:						
ALL OTHER	6,044	0	2,825	0	323,412	271,688
Total	6,044	0	2,825	0	323,412	271,688
1405100--Garlic,dried,etc.,exc. flour:						
CANADA	1,160,080	1,140,608	912,850	1,244,895	1,730,079	1,575,440
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	16,800	63,728	0	39,259	71,268	98,140
ALL OTHER	135,138	88,180	190,858	493,450	869,158	104,620
TOTAL	151,938	151,908	190,858	532,709	940,426	202,760
SOUTH AMERICA	447,777	846,285	872,351	651,878	948,854	277,107
TOTAL	599,715	998,193	1,063,209	1,184,587	1,889,280	479,867
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	0
Belgium and Luxembourg	387,284	303,136	52,360	32,783	58,716	85,082
Denmark	52,235	30,352	30,316	60,650	7,467	28,064
France	74,889	107,162	52,911	187,184	30,864	63,936
Germany, West	1,185,210	1,041,805	864,710	576,049	383,401	946,039
Ireland	0	12,232	0	551	2,315	6,613
Italy	68,151	33,070	2,205	2,205	8,819	3,307
Netherlands	364,597	177,484	324,655	317,077	238,538	360,582
United Kingdom	360,264	359,728	231,072	442,034	376,080	396,593
Total	2,492,630	2,064,969	1,558,229	1,618,533	1,106,200	1,890,216
OTHER W. EUROPE:						
Austria	130,165	79,755	44,237	0	0	37,481
Finland	7,370	17,637	31,376	58,060	45,778	73,087
Norway	2,100	3,250	2,700	8,276	2,204	10,873
Portugal	1,543	1,102	0	1,102	882	1,764
Spain	30,626	39,073	22,597	70,856	85,318	22,024
Sweden	110,129	93,802	94,563	141,055	75,561	143,033
Switzerland	61,229	179,546	173,946	65,119	95,515	114,736
ASIA:						
Hong Kong	36,000	0	1,000	0	0	750
Iran	20,020	0	0	0	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period: Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1384500--Potatoes,ex french fries,frz:						
Total	8,193,451	9,789,623	9,367,743	14,989,362	2,273,162	2,385,662
MIDDLE EAST	136,080	0	21,099	61,511	0	0
OCEANIA:						
AUSTRALIA	4,500	0	38,752	35,528	0	0
NEW ZEALAND	0	0	0	0	0	0
ALL OTHER	11,870	1,850	6,841	46,389	0	1,213
Total	16,370	1,850	45,593	81,917	0	1,213
AFRICA:						
ALL OTHER	2,189,932	2,164	0	14,580	0	0
Total	2,189,932	2,164	0	14,580	0	0
1405100--Garlic,dried,etc.,exc. flour:						
CANADA	1,500,066	1,323,446	2,031,764	2,750,587	388,497	524,813
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	0	91,612	5,760	34,000	0	0
ALL OTHER	190,609	128,238	94,805	96,544	14,164	5,825
TOTAL	190,609	219,850	100,565	130,544	14,164	5,825
SOUTH AMERICA	1,039,991	597,006	3,002,924	504,945	231,162	101,800
TOTAL	1,230,600	816,856	3,103,489	635,489	245,326	107,625
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	27,557
Belgium and Luxembourg	163,524	160,958	165,584	182,511	40,901	0
Denmark	62,881	67,342	54,903	66,001	0	3,306
France	323,487	73,523	55,210	47,674	0	0
Germany, West	925,540	660,760	954,773	752,600	64,382	197,612
Ireland	12,177	0	2,211	0	0	0
Italy	6,614	7,715	12,125	13,227	0	11,923
Netherlands	249,987	144,372	289,083	173,059	0	0
United Kingdom	670,994	678,458	2,218,124	927,907	122,083	381,229
Total	2,415,204	1,793,128	3,752,013	2,162,979	227,366	621,627
OTHER W. EUROPE:						
Austria	60,358	28,661	77,163	0	0	0
Finland	77,254	144,847	118,370	195,237	11,376	23,367
Norway	13,632	12,527	19,010	20,785	1,200	1,200
Portugal	7,220	0	3,093	0	0	0
Spain	89,012	21,439	5,968	71,567	0	0
Sweden	126,768	145,674	157,509	192,481	30,585	16,345
Switzerland	91,241	77,389	150,444	102,185	8,843	14,881
ASIA:						
Hong Kong	4,943	0	0	6,527	0	0
Iran	0	0	0	0	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1978	1979	1980	1981	1982	1983
1405100--Garlic,dried,etc.,exc. flour						
Israel	96,275	141,664	86,751	174,818	109,841	239,207
Japan	2,081,432	1,068,638	421,962	335,151	340,488	253,109
Korea, South	380,177	0	0	120,000	0	23,870
Malaysia	3,300	0	0	0	0	0
Oman	0	0	0	0	0	0
Philippines	18,900	15,018	49,087	18,975	22,968	32,958
Saudi Arabia	0	0	0	0	98,040	29,412
Singapore	42,965	18,163	0	0	0	2,325
Taiwan	788	0	0	1,753	100,943	351,658
Thailand	2,200	0	5,200	0	0	0
United Arab Emirates	2,400	0	0	0	0	0
Total	2,684,457	1,243,483	564,000	650,697	672,280	933,289
MIDDLE EAST	118,695	141,664	86,751	174,818	207,881	268,619
OCEANIA:						
AUSTRALIA	142,328	213,283	133,313	519,824	362,886	336,317
NEW ZEALAND	0	0	0	0	2,249	11,404
ALL OTHER	183,675	197,250	139,120	125,270	83,045	10,650
Total	326,003	410,533	272,433	645,094	448,180	358,371
AFRICA:						
ALL OTHER	125,626	19,195	33,017	74,296	181,506	178,600
Total	125,626	19,195	33,017	74,296	181,506	178,600
1405300--Onions,dried,etc.,exc. flour						
CANADA	5,082,754	4,150,914	3,792,423	5,154,879	5,791,220	4,843,218
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	4,431	10,392	12,557	23,825	0	43,900
ALL OTHER	394,423	346,250	344,956	314,435	545,960	966,075
TOTAL	398,854	356,642	357,513	338,260	545,960	1,009,975
SOUTH AMERICA	414,703	587,484	812,316	639,371	552,102	371,885
TOTAL	813,557	944,126	1,169,829	977,631	1,098,062	1,381,860
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	0
Belgium and Luxembourg	510,731	332,447	281,268	449,958	253,379	136,922
Denmark	237,847	511,827	199,793	401,590	285,597	396,365
France	390,275	328,269	299,262	410,322	335,859	622,168
Germany, West	3,641,973	4,511,743	4,484,296	5,161,023	6,499,038	5,804,033
Greece	17,500	19,750	26,500	55,046	41,888	30,865
Ireland	459,909	586,074	749,493	688,261	331,478	399,138
Italy	366,926	177,802	221,893	112,434	176,721	196,565
Netherlands	2,900,577	1,406,128	1,895,327	1,363,373	1,955,386	1,712,509
United Kingdom	5,535,666	6,577,979	6,334,145	6,374,184	6,454,725	6,156,416

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1405100--Garlic,dried,etc.,exc. flour						
Israel	261,035	144,805	261,131	145,548	26,054	37,912
Japan	734,938	185,082	255,479	225,768	74,060	35,574
Korea, South	1,753	0	0	0	0	0
Malaysia	0	0	0	0	0	0
Oman	39,617	0	0	0	0	0
Philippines	26,588	6,200	4,500	10,000	1,500	1,500
Saudi Arabia	116,680	31,800	0	0	0	0
Singapore	0	8,856	16,409	25,394	5,400	1,140
Taiwan	0	450	0	0	0	0
Thailand	0	0	0	0	0	0
United Arab Emirates	315,700	0	0	0	0	0
Total	1,501,254	377,193	537,519	413,237	107,014	76,126
MIDDLE EAST	733,032	176,605	261,131	145,548	26,054	37,912
OCEANIA:						
AUSTRALIA	639,645	373,741	682,277	546,810	63,604	85,830
NEW ZEALAND	15,108	13,876	16,428	16,542	3,316	2,204
ALL OTHER	6,300	43,680	33,891	212,310	0	22,500
Total	661,053	431,297	732,596	775,662	66,920	110,534
AFRICA:						
ALL OTHER	204,879	91,381	160,933	53,815	17,687	35,778
Total	204,879	91,381	160,933	53,815	17,687	35,778
1405300--Onions,dried,etc.,exc. flour						
CANADA	5,653,317	4,825,588	3,223,569	4,363,276	840,557	751,609
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	7,850	1,013	40,942	35,000	0	0
ALL OTHER	940,768	440,119	355,229	513,889	69,879	127,502
TOTAL	948,618	441,132	396,171	548,889	69,879	127,502
SOUTH AMERICA	668,144	251,229	151,267	275,340	115,870	0
TOTAL	1,616,762	692,361	547,438	824,229	185,749	127,502
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	74,514
Belgium and Luxembourg	441,040	516,634	579,793	390,035	60,813	0
Denmark	324,362	300,592	224,900	324,161	53,015	27,886
France	156,932	371,332	206,693	103,691	0	0
Germany, West	5,346,986	4,769,636	5,339,037	5,736,518	951,264	1,124,361
Greece	44,094	26,500	45,729	37,243	0	0
Ireland	431,026	397,002	278,745	236,804	41,403	86,357
Italy	284,815	164,241	201,300	215,373	63,643	60,626
Netherlands	1,879,226	2,222,409	1,383,942	1,676,175	225,313	313,856
United Kingdom	7,141,919	6,382,876	6,823,001	6,106,720	822,594	1,236,750

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner — Time period	1978	1979	1980	1981	1982	1983
1405300--Onions,dried,etc.,exc. flour						
Total	14,061,404	14,452,019	14,491,977	15,016,191	16,334,071	15,454,981
OTHER W. EUROPE:						
Austria	311,632	281,365	55,246	26,421	17,627	27,247
Finland	133,537	146,904	213,872	326,686	295,293	446,388
Iceland	0	6,750	0	0	0	0
Norway	446,688	389,982	911,534	509,753	678,509	643,169
Portugal	72,500	134,037	118,250	123,000	84,500	129,184
Spain	534,872	987,384	2,079,804	1,173,983	1,216,770	832,594
Sweden	2,018,318	1,648,566	1,525,938	1,628,510	1,245,773	1,413,970
Switzerland	1,102,957	991,874	1,236,552	1,262,040	1,105,460	1,467,975
ASIA:						
Bangladesh	0	0	0	0	0	0
Hong Kong	119,387	12,489	25,256	19,229	8,386	2,850
Indonesia	13,367	0	0	45,000	3,740	0
Israel	53,110	26,096	31,817	68,215	27,460	47,846
Japan	3,828,384	3,207,835	3,370,085	6,897,871	3,579,389	3,228,581
Korea, South	42,840	0	605,883	650,052	467,809	534,429
Kuwait	0	0	0	0	0	4,096
Malaysia	20,000	17,240	31,950	26,488	18,250	47,210
Oman	0	0	0	0	0	0
Philippines	34,656	18,005	11,104	44,969	37,892	84,439
Saudi Arabia	0	4,560	2,106	2,538	13,967	8,433
Singapore	13,450	35,221	23,394	98,124	43,724	17,715
Taiwan	0	0	0	0	19,200	0
Thailand	4,040	83,400	4,320	3,960	0	0
Total	4,129,234	3,404,846	4,105,915	7,856,446	4,219,817	3,975,599
MIDDLE EAST	53,110	30,656	33,923	70,753	41,427	60,375
OCEANIA:						
AUSTRALIA	1,465,443	1,814,025	1,497,197	2,318,050	1,930,105	2,276,949
NEW ZEALAND	2,631	4,900	8,132	28,601	63,595	130,563
ALL OTHER	236,210	20,254	65,700	397,015	3,500	0
Total	1,704,284	1,839,179	1,571,029	2,743,666	1,997,200	2,407,512
AFRICA:						
ALL OTHER	164,411	85,598	298,259	418,049	423,871	223,293
Total	164,411	85,598	298,259	418,049	423,871	223,293
1405620--Potato flakes, dry, ex flour						
CANADA	1,439,564	2,059,844	3,186,829	2,643,365	1,484,739	1,262,159
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	0	0	235,338	0	3,740	0
ALL OTHER	439,072	104,716	740,304	222,454	309,038	182,341
TOTAL	439,072	104,716	975,642	222,454	312,778	182,341

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period: Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1405300--Onions,dried,etc.,exc. flour:						
Total	16,050,400	15,151,222	15,083,140	14,826,720	2,218,045	2,924,350
OTHER W. EUROPE:						
Austria	38,304	22,032	61,860	37,514	0	2,204
Finland	373,671	477,220	557,273	692,697	81,307	67,712
Iceland	0	0	0	0	0	0
Norway	596,945	588,880	761,565	843,051	158,118	100,560
Portugal	129,188	131,490	85,666	129,024	42,494	43,265
Spain	1,116,246	1,150,055	1,114,543	1,391,894	150,298	455,214
Sweden	1,251,800	1,266,583	1,341,682	1,388,915	224,606	255,347
Switzerland	1,413,611	1,560,172	1,095,591	1,572,331	180,703	341,473
ASIA:						
Bangladesh	44,631	0	0	0	0	0
Hong Kong	79,630	110,589	83,164	39,307	10,969	0
Indonesia	6,667	6,667	8,911	211,640	0	19,842
Israel	17,580	74,966	89,237	107,263	0	35,400
Japan	5,658,534	4,267,372	5,551,847	9,996,864	814,288	2,687,347
Korea, South	810,186	369,280	0	0	0	0
Kuwait	320	0	0	0	0	0
Malaysia	77,250	59,008	26,250	53,279	2,500	13,764
Oman	0	0	0	3,075	0	0
Philippines	23,262	15,950	31,574	140,023	4,400	0
Saudi Arabia	3,240	9,980	1,152	0	0	0
Singapore	106,858	69,746	62,494	97,850	4,500	12,612
Taiwan	4,701	66,154	136,015	4,680	4,680	11,960
Thailand	5,000	5,000	9,986	9,986	0	0
Total	6,837,859	5,054,712	6,000,630	10,663,967	841,337	2,780,925
MIDDLE EAST	21,140	84,946	90,389	110,338	0	35,400
OCEANIA:						
AUSTRALIA	2,304,707	2,506,325	2,516,301	2,844,166	313,389	344,839
NEW ZEALAND	99,791	218,830	183,886	215,436	51,164	50,631
ALL OTHER	0	0	0	45,000	0	0
Total	2,404,498	2,725,155	2,700,187	3,104,602	364,553	395,470
AFRICA:						
ALL OTHER	429,276	201,985	164,921	269,851	0	24,921
Total	429,276	201,985	164,921	269,851	0	24,921
1405620--Potato flakes, dry, ex flour:						
CANADA	2,092,125	1,158,433	1,444,729	1,267,548	311,279	312,064
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	0	80,000	7,285	65,000	0	43,000
ALL OTHER	96,729	122,506	172,564	193,193	14,136	1,276
TOTAL	96,729	202,506	179,849	258,193	14,136	44,276

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period: Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1405620--Potato flakes, dry, ex flour:						
SOUTH AMERICA	108,983	557,268	1,890,121	1,600,100	1,034,716	608,842
TOTAL	548,055	661,984	2,865,763	1,822,554	1,347,494	791,183
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	951,287	1,358,751	2,518,127	0	79,895	402,713
Denmark	113,613	164,725	113,600	125,200	100,000	80,000
France	1,045,010	3,073,215	5,165,276	85,024	1,199,808	1,409,755
Germany, West	2,022,435	14,258,947	12,302,921	1,200,538	1,836,924	1,142,864
Greece	0	116,229	483,987	317,214	2,926	240,349
Ireland	0	399,175	240,000	40,000	723,849	279,000
Italy	86,138	506,078	2,827,384	78,992	0	0
Netherlands	200,137	189,567	420,254	0	387,777	1,191,309
United Kingdom	2,628,532	5,337,058	6,271,130	1,059,541	4,519,493	6,370,117
Total	7,047,152	25,403,745	30,342,679	2,906,509	8,850,672	11,116,107
OTHER W. EUROPE:						
Gibraltar	0	0	0	0	0	40,000
Iceland	2,340	12,302	6,072	9,711	5,373	5,771
Malta and Gozo	550	0	0	9,312	0	0
Norway	314,656	235,005	1,014,122	696,498	2,197,307	1,276,257
Portugal	0	116,229	1,398,983	155,894	1,473,256	78,936
Spain	1,026,659	1,790,422	3,948,864	567,060	1,563,292	1,578,037
Sweden	1,570,207	1,249,747	1,133,410	1,089,982	1,099,392	894,359
Switzerland	0	0	0	75,412	40,392	0
ASIA:						
Bahrain	5,280	15,385	0	1,463	0	600
China	0	0	0	0	0	0
Hong Kong	28,638	29,699	22,959	40,173	60,577	3,228
Indonesia	0	0	1,200	5,000	21,417	0
Israel	20,000	0	0	1,920	43,078	345,501
Japan	34,285,716	29,975,585	45,510,390	37,113,521	39,289,468	26,543,340
Jordan	1,229	0	0	2,046	2,993	1,620
Korea, South	150,432	0	0	6,021	8,162	2,435
Kuwait	0	0	0	2,225	0	0
Lebanon	2,906	2,310	0	0	0	1,200
Malaysia	0	0	0	0	769	47,302
Oman	0	0	0	12,307	600	0
Philippines	31,751	24,658	12,489	38,260	71,303	35,600
Qatar	700	0	0	0	0	0
Saudi Arabia	260,111	29,711	55,291	455,029	185,730	3,725
Singapore	0	4,995	92,893	304,378	964,773	666,246
Taiwan	0	0	175,008	539,290	990	272,970

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period: Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1405620--Potato flakes, dry, ex flour:						
SOUTH AMERICA	494,638	244,475	478,960	1,394,111	368,200	119,683
TOTAL	591,367	446,981	658,809	1,652,304	382,336	163,959
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	20,000	0	0	0	0	0
Denmark	0	20,000	24,141	47,815	0	24,090
France	1,274,439	0	837,675	1,369,250	563,824	0
Germany, West	736,000	0	0	0	0	0
Greece	81,309	0	0	0	0	0
Ireland	160,000	120,000	469,640	187,725	0	0
Italy	0	0	0	78,997	0	0
Netherlands	648,809	127,440	570,000	1,369,274	80,000	239,040
United Kingdom	1,438,271	220,025	548,935	1,821,368	0	1,265,640
Total	4,358,828	487,465	2,450,391	4,874,429	643,824	1,528,770
OTHER W. EUROPE:						
Gibraltar	0	0	0	0	0	0
Iceland	5,333	0	0	0	0	0
Malta and Gozo	0	0	0	0	0	0
Norway	209,967	0	272,773	360,107	55,503	40,000
Portugal	39,999	0	0	153,323	0	0
Spain	160,000	0	678,749	437,996	40,000	40,000
Sweden	388,258	291,518	241,020	483,118	40,950	156,896
Switzerland	0	0	0	0	0	0
ASIA:						
Bahrain	0	0	0	0	0	0
China	450	0	0	0	0	0
Hong Kong	83,094	48,860	9,706	4,327	0	0
Indonesia	3,375	2,700	46,229	0	0	0
Israel	41,050	0	34,900	64,092	0	84,000
Japan	22,833,131	21,431,627	27,343,235	29,924,791	5,856,045	4,441,528
Jordan	0	0	0	0	0	0
Korea, South	0	45,930	0	0	0	0
Kuwait	0	4,938	0	6,648	0	0
Lebanon	0	0	0	0	0	0
Malaysia	0	0	19,009	40,176	0	40,176
Oman	0	0	0	0	0	0
Philippines	12,000	57,520	45,490	80,000	0	0
Qatar	0	0	0	0	0	0
Saudi Arabia	114,315	6,648	30,052	142,528	27,337	0
Singapore	1,589,472	927,720	1,267,485	1,419,380	251,577	303,989
Taiwan	339,976	628,373	1,776,791	1,977,716	223,747	218,100

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1978	1979	1980	1981	1982	1983
1405620--Potato flakes, dry, ex flour						
Thailand	0	0	0	0	0	0
United Arab Emirates	7,357	0	16,000	4,041	21,460	510
Total	34,794,120	30,082,343	45,886,230	38,525,674	40,671,320	27,924,277
MIDDLE EAST	297,583	47,406	71,291	479,031	253,861	353,156
OCEANIA:						
AUSTRALIA	0	463,556	3,466	0	124,936	319,184
NEW ZEALAND	0	0	0	0	0	0
ALL OTHER	6,000	32,910	33,828	0	798	0
Total	6,000	496,466	37,294	0	125,734	319,184
AFRICA:						
ALL OTHER	14,004	46,799	86,000	1,898,220	427,746	424,303
Total	14,004	46,799	86,000	1,898,220	427,746	424,303
1405640--Potato granules dry ex flour						
CANADA	73,400	293,980	181,514	184,125	82,336	65,550
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	0	2,500	0	0	0	0
ALL OTHER	545,075	371,159	437,471	189,570	144,789	87,909
TOTAL	545,075	373,659	437,471	189,570	144,789	87,909
SOUTH AMERICA	49,486	64,541	101,121	25,733	19,159	20,000
TOTAL	594,561	438,200	538,592	215,303	163,948	107,909
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	0	38,731	0	0	0	0
Denmark	591,304	413,948	168,000	0	0	0
France	161,730	0	27,558	0	0	0
Germany, West	36,300	866	83,200	0	0	0
Ireland	40,350	0	0	0	0	0
Italy	40,320	39,348	173,040	0	0	44,000
Netherlands	53,343	56,731	473,879	0	0	0
United Kingdom	2,930,830	3,559,880	3,716,899	1,396,807	609,520	39,820
Total	3,854,177	4,109,504	4,642,576	1,396,807	609,520	906,807
OTHER W. EUROPE:						990,627
Iceland	334	0	0	0	0	0
Portugal	0	7,200	0	0	0	0
Spain	274,715	558,205	349,796	0	76,000	152,000
Sweden	4,009,632	3,176,789	2,731,136	2,288,172	2,482,535	2,044,899
ASIA:						
Bahrain	9,014	8,000	0	2,100	4,793	557
Hong Kong	29,638	41,369	44,700	34,686	47,832	25,799
Indonesia	24,030	0	13,355	4,485	7,494	760
Iran	14,897	0	0	0	0	0

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1405620--Potato flakes, dry, ex flour:						
Thailand	0	0	0	301,210	0	0
United Arab Emirates	0	0	25,321	0	0	26,529
Total	25,016,863	23,154,316	30,598,218	33,960,868	6,358,706	5,114,322
MIDDLE EAST	155,365	11,586	90,273	213,268	27,337	110,529
OCEANIA:						
AUSTRALIA	76,562	141,308	128,088	244,364	39,991	0
NEW ZEALAND	0	0	22,500	35,900	22,500	20,092
ALL OTHER	1,650	0	0	0	0	0
Total	78,212	141,308	150,588	280,264	62,491	20,092
AFRICA:						
ALL OTHER	504,598	6,016	0	279,411	39,411	80,000
Total	504,598	6,016	0	279,411	39,411	80,000
1405640--Potato granules dry ex flour:						
CANADA	0	4,100	495,348	138,216	0	1,450
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	0	0	0	0	0	0
ALL OTHER	90,685	47,274	48,000	54,000	10,000	43,560
TOTAL	90,685	47,274	48,000	54,000	10,000	43,560
SOUTH AMERICA	156,500	0	702,000	0	0	0
TOTAL	247,185	47,274	750,000	54,000	10,000	43,560
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	0	0	0	0	0	0
Denmark	0	0	0	0	0	0
France	0	0	0	0	0	0
Germany, West	0	0	0	0	0	0
Ireland	44,000	0	0	0	0	0
Italy	0	0	0	0	0	0
Netherlands	240,000	0	5,500	0	0	0
United Kingdom	3,203,363	436,925	289,165	343,095	76,190	0
Total	3,487,363	436,925	294,665	343,095	76,190	0
OTHER W. EUROPE:						
Iceland	0	0	0	0	0	0
Portugal	0	0	0	0	0	0
Spain	152,000	0	0	0	0	0
Sweden	2,331,891	2,039,583	2,224,333	2,274,907	263,596	228,158
ASIA:						
Bahrain	3,165	0	0	0	0	0
Hong Kong	13,219	19,031	10,000	14,500	0	0
Indonesia	0	0	0	0	0	0
Iran	0	0	0	0	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period / Schedule B commodity / Partner	1978	1979	1980	1981	1982	1983
1405640--Potato granules dry ex flour:						
Israel	67,320	143,051	37,660	105,204	0	0
Japan	11,752,334	9,320,073	3,109,635	3,709,948	2,467,702	2,629,545
Jordan	0	2,360	0	0	0	0
Korea, South	0	0	3,480	0	1,650	0
Kuwait	0	0	5,114	2,529	875	1,750
Lebanon	0	0	976	0	0	0
Oman	1,364	5,608	3,132	0	0	0
Philippines	14,288	14,750	48,650	93,163	119,095	197,639
Qatar	0	0	0	52,950	52,950	0
Saudi Arabia	138,051	15,440	82,175	78,176	115,595	2,513
Singapore	7,540	65,794	115,748	37,307	14,928	207,083
Taiwan	0	0	3,240	5,406	0	0
Thailand	5,263	6,122	7,119	3,901	0	0
United Arab Emirates	1,261	4,880	2,042	5,762	0	488
Total	12,065,000	9,627,447	3,477,026	4,135,617	2,832,914	3,066,134
MIDDLE EAST	231,907	179,339	131,099	246,721	174,213	5,308
OCEANIA:						
AUSTRALIA	504,851	110,646	31,290	131,250	24,750	35,955
NEW ZEALAND	0	0	0	0	12,134	0
ALL OTHER	31,466	22,740	24,216	63,452	63,522	45,610
Total	536,317	133,386	55,506	194,702	100,506	81,565
AFRICA:						
ALL OTHER	260,456	445,072	454,800	707	0	0
Total	260,456	445,072	454,800	707	0	0
1405660--Potatoes,nspf,drd,etc,x flr						
CANADA	4,853,917	5,433,625	5,811,783	5,147,034	6,355,691	5,258,760
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	76,002	38,447	14,003	62,670	39,953	42,118
ALL OTHER	938,525	266,381	558,968	333,811	305,348	156,036
TOTAL	1,014,527	304,828	572,971	396,481	345,301	198,154
SOUTH AMERICA	210,413	274,797	25,080	60,018	471,270	1,280
TOTAL	1,224,940	579,625	598,051	456,499	816,571	199,434
WESTERN EUROPE:						
EC-10:						
Denmark	0	4,194	1,556	17,342	1,738	800
France	443,766	0	0	0	0	0
Germany, West	508,580	1,279,312	814,640	112,396	0	20,488
Greece	0	31,860	0	0	19,451	0
Ireland	460	0	0	0	40,000	387,848
Italy	0	43,840	0	0	0	2,400
Netherlands	51,096	1,263,184	691,966	160,982	86,200	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	 1988
1405640--Potato granules dry ex flour						
Israel	0	0	0	0	0	0
Japan	2,089,580	2,433,776	2,282,741	2,154,045	304,880	84,000
Jordan	0	0	0	0	0	0
Korea, South	79,350	0	0	0	0	0
Kuwait	0	0	0	0	0	0
Lebanon	488	0	0	0	0	0
Oman	0	0	0	0	0	0
Philippines	35,690	12,960	0	0	0	0
Qatar	0	0	0	0	0	0
Saudi Arabia	49,946	9,121	0	18,956	0	0
Singapore	136,742	3,339	33,547	0	0	0
Taiwan	0	21,842	0	0	0	0
Thailand	0	0	0	0	0	0
United Arab Emirates	366	976	1,218	0	0	0
Total	2,408,546	2,501,045	2,327,506	2,187,501	304,880	84,000
MIDDLE EAST	53,965	10,097	1,218	18,956	0	0
OCEANIA:						
AUSTRALIA	40,665	15,245	0	14,430	0	0
NEW ZEALAND	0	0	0	0	0	0
ALL OTHER	39,250	8,450	37,233	16,244	0	0
Total	79,915	23,695	37,233	30,674	0	0
AFRICA:						
ALL OTHER	220,000	0	0	0	0	0
Total	220,000	0	0	0	0	0
1405660--Potatoes,nspf,drd,etc,x flr						
CANADA	5,338,321	5,393,141	6,471,134	8,900,221	1,188,606	1,769,546
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	45,261	10,878	131,865	151,662	0	32,532
ALL OTHER	368,288	704,676	54,893	76,671	31,827	3,373
TOTAL	413,549	715,554	186,758	228,333	31,827	35,905
SOUTH AMERICA	7,682	0	0	91,000	0	0
TOTAL	421,231	715,554	186,758	319,333	31,827	35,905
WESTERN EUROPE:						
EC-10:						
Denmark	2,681	0	10,468	0	0	0
France	0	0	0	0	0	0
Germany, West	0	15,769	0	0	0	0
Greece	0	0	0	0	0	0
Ireland	40,000	0	0	9,049	0	0
Italy	0	0	0	0	0	0
Netherlands	179,634	376,000	211,576	24,565	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner — Time period:	1978	1979	1980	1981	1982	1983
1405660--Potatoes,nspf,drd,etc,x flr						
United Kingdom	2,456,284	1,034,937	310,230	36,437	85,745	659,980
Total	3,460,186	3,657,327	1,818,392	327,157	233,134	1,071,516
OTHER W. EUROPE:						
Austria	0	0	0	0	0	0
Cyprus	0	0	0	1,268	0	0
Iceland	6,926	22,959	17,320	22,265	18,107	10,125
Norway	0	80,200	160,000	124,040	0	1,100
Portugal	0	0	0	0	242,640	0
Spain	72,495	0	0	0	0	0
Sweden	410,133	166,978	257,670	171,198	0	16,810
Switzerland	2,060	0	0	0	0	0
ASIA:						
Bahrain	2,500	29,932	6,526	0	0	8,904
Hong Kong	19,930	21,711	14,111	19,607	15,732	39,073
Indonesia	0	0	0	0	14,531	11,925
Iran	25,368	0	0	0	0	0
Israel	0	0	0	675	0	0
Japan	18,138,957	15,748,012	815,697	1,167,374	323,155	527,607
Jordan	16,770	0	16,200	6,829	2,927	0
Korea, South	0	3,300	25,549	0	48,950	611,615
Kuwait	8,197	0	0	0	70,140	9,518
Lebanon	0	0	9,700	1,318	2,818	1,600
Malaysia	0	0	7,390	0	0	14,979
Oman	0	0	0	212,073	163,885	0
Philippines	10,000	58,407	0	0	14,444	11,902
Qatar	0	0	0	0	17,659	0
Saudi Arabia	215,012	31,490	136,405	6,750	199,433	349,011
Singapore	31,945	6,950	21,568	9,360	65,221	8,177
Taiwan	6,562	0	3,516	0	1,573	3,107
Thailand	0	7,014	0	7,266	0	0
United Arab Emirates	10,000	0	23,720	73,700	3,650	36,076
Total	18,485,241	15,906,816	1,080,382	1,504,952	944,118	1,633,494
MIDDLE EAST	277,847	61,422	192,551	301,345	460,512	405,109
OCEANIA:						
AUSTRALIA	87,795	160,119	246,564	144,980	239,697	197,245
NEW ZEALAND	400	0	0	0	0	0
ALL OTHER	330,117	288,872	184,370	5,493	4,500	3,800
Total	418,312	448,991	430,934	150,473	244,197	201,045
AFRICA:						
ANGOLA	0	0	0	0	0	0
ALL OTHER	0	0	0	18,868	906	41,170
Total	0	0	0	18,868	906	41,170

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period: Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	 1988
1405660--Potatoes,nspf,drd,etc,x flr						
United Kingdom	450,441	246,101	383,410	57,103	38,086	88,200
Total	672,756	637,870	605,454	90,717	38,086	88,200
OTHER W. EUROPE:						
Austria	4,500	0	0	0	0	0
Cyprus	0	0	0	0	0	0
Iceland	15,660	2,862	6,060	3,200	0	0
Norway	28,290	0	40,000	109,370	0	0
Portugal	0	0	0	0	0	0
Spain	0	0	0	0	0	0
Sweden	129,600	40,000	265,556	42,525	42,525	0
Switzerland	0	0	0	0	0	0
ASIA:						
Bahrain	0	0	0	0	0	0
Hong Kong	8,176	50,006	30,610	31,330	0	22,121
Indonesia	0	0	0	0	0	0
Iran	0	0	0	0	0	0
Israel	0	122,000	0	0	0	0
Japan	752,400	1,748,075	665,417	710,906	78,075	483,182
Jordan	0	16,595	0	0	0	0
Korea, South	85,446	0	0	0	0	0
Kuwait	19,238	10,200	19,610	17,912	0	17,440
Lebanon	2,944	4,232	0	0	0	0
Malaysia	0	0	0	0	0	0
Oman	9,551	0	187,793	0	0	0
Philippines	42,900	184,063	223,104	92,273	0	0
Qatar	0	0	0	0	0	0
Saudi Arabia	57,919	0	38,729	183,923	32,156	0
Singapore	1,485	0	33,659	259,348	0	0
Taiwan	65,088	21,400	78,340	89,733	0	26,697
Thailand	0	0	0	0	0	0
United Arab Emirates	47,813	0	28,787	0	0	0
Total	1,092,960	2,156,571	1,306,049	1,385,425	110,231	549,440
MIDDLE EAST	137,465	153,027	274,919	201,835	32,156	17,440
OCEANIA:						
AUSTRALIA	153,448	135,059	96,640	75,712	0	24,855
NEW ZEALAND	0	0	0	101,025	0	0
ALL OTHER	8,820	50,000	0	21,895	0	0
Total	162,268	185,059	96,640	198,632	0	24,855
AFRICA:						
ANGOLA	0	0	0	3,181	0	0
ALL OTHER	118,740	75,706	0	15,823	0	0
Total	118,740	75,706	0	19,004	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period: Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1410340--Beans,cnd,nspf,excl. pickled						
CANADA	2,959,133	1,036,970	1,401,811	827,712	1,850,871	938,907
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	2,442,518	2,718,996	2,337,326	2,004,866	583,237	110,248
ALL OTHER	6,271,649	4,565,197	4,693,327	5,578,356	9,475,865	5,786,192
TOTAL	8,714,167	7,284,193	7,030,653	7,583,222	10,059,102	5,896,440
SOUTH AMERICA	1,594,646	1,247,334	938,203	1,477,486	1,545,949	544,586
TOTAL	10,308,813	8,531,527	7,968,856	9,060,708	11,605,051	6,441,026
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	41,707	27,854	57,335	10,671	960	14,242
Denmark	340,181	48,593	3,191	18,292	14,148	16,189
France	21,505	58,723	50,280	105,782	119,690	162,520
Germany, West	1,074,781	785,902	63,575	836,089	1,784,338	962,729
Greece	22,648	4,453	27,328	40,362	34,124	4,893
Italy	30,185	11,100	3,557	0	31,163	82,545
Netherlands	63,004	113,292	329,018	108,038	751,667	108,025
United Kingdom	180,661	371,091	90,565	254,826	448,937	202,274
Total	1,774,672	1,421,008	624,849	1,374,060	3,185,027	1,553,417
OTHER W. EUROPE:						
Austria	0	15,800	0	3,348	0	12,907
Cyprus	0	0	4,001	0	0	0
Finland	0	40,733	4,400	0	14,740	5,698
Iceland	0	14,668	58,396	104,653	7,618	1,800
Malta and Gozo	2,250	0	0	5,587	0	0
Norway	89,326	2,200	0	3,512	4,478	0
Portugal	4,480	0	32,873	0	4,680	0
Spain	0	0	3,544	20,360	0	0
Sweden	1,658	0	5,077	10,282	8,200	34,386
Switzerland	225,902	332,859	208,112	268,362	82,170	134,244
ASIA:						
Bahrain	191,407	125,804	55,203	62,117	12,173	73,525
Bangladesh	0	0	0	0	0	0
Brunei	78,530	4,991	0	4,892	0	1,905
Hong Kong	112,809	782,315	247,912	187,818	198,383	157,864
India	7,203	0	2,900	0	0	0
Indonesia	21,461	26,225	64,000	92,905	99,114	62,936
Iran	36,164	0	0	0	0	0
Iraq	6,619	359,700	0	0	0	0
Israel	36,718	0	0	0	26,499	0
Japan	538,402	477,099	541,733	1,693,359	424,969	225,535

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period: Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1410340--Beans,cnd,nspf,excl. pickled						
CANADA	1,260,026	943,296	621,186	481,340	84,674	83,234
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	134,800	443,270	566,227	282,211	38,518	50,658
ALL OTHER	4,633,352	6,303,125	8,340,505	6,624,663	1,527,708	1,222,522
TOTAL	4,768,152	6,746,395	8,906,732	6,906,874	1,566,226	1,273,180
SOUTH AMERICA	218,245	81,263	102,028	89,856	5,354	78,174
TOTAL	4,986,397	6,827,658	9,008,760	6,996,730	1,571,580	1,351,354
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	23,343	50,348	19,318	14,490	0	0
Denmark	7,734	0	4,800	0	0	0
France	83,145	164,340	0	42,840	0	0
Germany, West	806,125	338,852	5,400	0	0	0
Greece	26,479	8,704	0	26,238	0	0
Italy	2,885	0	0	0	0	0
Netherlands	174,272	10,205	0	5,040	5,040	0
United Kingdom	319,835	71,400	74,372	14,342	4,442	0
Total	1,443,818	643,849	103,890	102,950	9,482	0
OTHER W. EUROPE:						
Austria	0	0	0	0	0	10,800
Cyprus	0	0	0	0	0	0
Finland	0	0	0	0	0	0
Iceland	0	40,753	0	0	0	0
Malta and Gozo	0	0	0	0	0	0
Norway	10,200	0	3,600	0	0	0
Portugal	23,217	0	7,066	0	0	0
Spain	0	32,193	17,415	0	0	0
Sweden	110,581	41,000	2,624	35,682	0	3,607
Switzerland	34,957	33,600	0	33,600	0	0
ASIA:						
Bahrain	41,287	56,559	89,289	20,731	7,724	8,609
Bangladesh	2,911	0	0	0	0	0
Brunei	0	2,180	0	0	0	0
Hong Kong	251,656	115,198	152,469	194,160	29,611	1,280
India	0	0	0	0	0	0
Indonesia	233,939	129,855	24,840	32,410	7,063	0
Iran	0	0	0	0	0	0
Iraq	0	0	0	0	0	0
Israel	0	15,686	79,461	120,216	0	319,756
Japan	356,521	192,436	495,026	210,889	13,760	36,285

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1410340--Beans,cnd,nspf,excl. pickled						
Jordan	20,274	114,445	76,468	60,448	145,929	13,716
Korea, South	659,692	131,664	553,186	314,768	388,021	348,808
Kuwait	755,148	900,658	461,509	560,085	552,765	176,456
Lebanon	2,513	52,596	40,378	38,758	44,204	19,438
Malaysia	2,321	9,431	0	45,000	3,620	115,941
Oman	316,584	31,929	3,940	563,039	192,495	205,054
Pakistan	1,440	0	0	0	0	0
Philippines	0	0	0	11,548	13,984	3,793
Qatar	68,651	17,465	103,215	98,993	27,784	306,845
Saudi Arabia	2,465,756	2,842,019	3,138,831	2,561,159	3,398,302	3,172,456
Singapore	236,420	375,228	161,126	235,627	255,155	201,100
Taiwan	4,724	31,799	77,317	131,314	17,300	13,489
Thailand	20,221	17,457	0	0	3,284	0
United Arab Emirates	1,161,790	766,050	608,192	687,628	452,113	226,225
Yemen (Aden) (S Yemen)	0	0	0	0	0	0
Yemen (Sana)	0	0	0	0	0	9,000
Total	6,744,847	7,066,875	6,135,910	7,349,458	6,256,094	5,334,086
MIDDLE EAST	5,061,624	5,210,666	4,487,736	4,632,227	4,852,264	4,202,715
OCEANIA:						
AUSTRALIA	0	9,850	286,970	71,679	64,553	5,696
NEW ZEALAND	0	0	0	0	0	2,915
ALL OTHER	1,158,088	996,686	1,776,084	1,096,946	1,506,208	901,453
Total	1,158,088	1,006,536	2,063,054	1,168,625	1,570,761	910,064
AFRICA:						
ANGOLA	0	4,080	7,942	0	0	0
ALL OTHER	1,632,697	1,888,192	884,686	826,941	532,771	267,933
Total	1,632,697	1,892,272	892,628	826,941	532,771	267,933
1410500--Corn, canned, excl. pickled						
CANADA	5,498,851	3,045,576	2,464,131	1,605,728	1,808,179	3,461,191
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	2,417,506	2,504,929	2,637,776	2,882,895	913,123	594,272
ALL OTHER	1,805,059	2,027,265	2,691,994	2,000,715	1,985,840	1,579,162
TOTAL	4,222,565	4,532,194	5,329,770	4,883,610	2,898,963	2,173,434
SOUTH AMERICA	2,056,260	2,596,171	2,618,262	1,882,870	1,711,607	152,248
TOTAL	6,278,825	7,128,365	7,948,032	6,766,480	4,610,570	2,325,682
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	0
Belgium and Luxembourg	572,991	697,407	1,066,510	988,998	1,139,675	771,244
Denmark	917,542	1,325,138	838,959	1,101,984	738,170	919,627
France	12,991,935	23,010,106	20,662,025	20,466,713	18,852,553	22,147,103

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period: Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1410340--Beans,cnd,nspf,excl. pickled:						
Jordan	0	40,498	45,414	54,105	4,216	8,713
Korea, South	549,977	598,382	796,689	510,772	186,900	207,184
Kuwait	439,589	257,994	198,500	195,892	22,543	74,596
Lebanon	117,510	75,100	37,600	70,085	33,440	0
Malaysia	39,637	22,662	3,794	0	0	0
Oman	204,221	476,115	351,212	316,844	5,016	0
Pakistan	0	300,987	0	0	0	0
Philippines	1,395	0	0	0	0	0
Qatar	5,040	12,100	19,586	18,093	9,693	0
Saudi Arabia	3,790,583	2,854,708	2,923,080	3,058,489	434,410	459,807
Singapore	117,437	117,666	323,167	140,092	46,063	12,446
Taiwan	19,879	32,030	314,594	36,614	9,936	0
Thailand	8,000	0	0	0	0	0
United Arab Emirates	208,362	375,371	291,437	241,806	6,120	13,107
Yemen (Aden) (S Yemen)	32,637	0	0	0	0	0
Yemen (Sana)	0	10,080	0	0	0	0
Total	6,420,581	5,685,607	6,146,158	5,221,198	816,495	1,141,783
MIDDLE EAST	4,839,229	4,174,211	4,035,579	4,096,261	523,162	884,588
OCEANIA:						
AUSTRALIA	12,756	10,940	0	96,279	0	0
NEW ZEALAND	0	0	0	9,406	6,806	15,488
ALL OTHER	1,274,673	895,442	1,032,431	887,696	174,559	228,938
Total	1,287,429	906,382	1,032,431	993,381	181,365	244,426
AFRICA:						
ANGOLA	0	0	3,023	0	0	0
ALL OTHER	336,908	83,786	280,064	469,739	78,746	22,527
Total	336,908	83,786	283,087	469,739	78,746	22,527
1410500--Corn, canned, excl. pickled						
CANADA	991,645	558,538	2,335,669	1,811,059	430,619	252,910
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	749,442	2,366,795	2,333,125	2,719,505	303,830	481,691
ALL OTHER	1,947,962	1,617,277	2,366,569	2,279,123	397,935	667,627
TOTAL	2,697,404	3,984,072	4,699,694	4,998,628	701,765	1,149,318
SOUTH AMERICA	6,451	133,801	55,353	40,248	40,248	12,973
TOTAL	2,703,855	4,117,873	4,755,047	5,038,876	742,013	1,162,291
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	38,640
Belgium and Luxembourg	1,466,666	642,364	522,536	348,380	29,232	0
Denmark	779,520	1,228,728	1,707,872	4,822,303	494,061	550,901
France	13,700,655	11,156,790	13,681,627	6,468,970	505,531	2,798,171

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner — Time period	1978	1979	1980	1981	1982	1983
1410500--Corn, canned, excl. pickled						
Germany, West	11,165,091	11,565,045	16,946,676	14,060,056	17,385,877	19,411,383
Greece	145,600	155,238	254,243	88,973	228,375	64,595
Ireland	0	79,800	584,309	121,410	87,780	446,456
Italy	132,767	161,768	93,570	57,949	80,159	390,694
Netherlands	598,915	1,792,503	1,825,034	301,442	1,128,369	1,089,633
United Kingdom	7,023,108	8,354,632	9,545,859	8,344,853	12,322,117	19,961,441
Total	33,547,952	47,141,637	51,817,185	45,532,378	51,963,075	65,202,176
OTHER W. EUROPE:						
Austria	275,385	251,212	379,276	442,957	465,626	451,724
Cyprus	6,120	30,285	24,300	132,311	47,700	37,020
Finland	78,761	41,877	102,028	70,305	87,560	78,696
Gibraltar	69,840	18,360	47,207	9,180	10,520	12,852
Iceland	54,287	15,436	39,479	236,541	48,390	16,087
Malta and Gozo	0	13,928	0	55,801	0	4,987
Norway	315,663	250,456	268,815	479,798	339,363	705,897
Portugal	25,535	6,375	0	44,993	72,311	19,125
Spain	99,008	97,980	350,436	351,871	455,505	228,774
Sweden	2,972,876	2,506,460	2,696,606	3,687,565	5,190,254	3,921,585
Switzerland	6,585,508	5,596,628	4,590,676	7,338,496	10,705,937	7,984,340
ASIA:						
Bahrain	32,999	20,212	32,694	12,857	37,064	67,630
Brunei	28,800	28,800	28,800	0	0	36,787
China	0	0	0	63,750	0	33,280
Hong Kong	8,414,776	6,747,768	2,602,849	4,664,549	3,468,919	3,610,728
India	0	0	0	0	0	0
Indonesia	166,684	234,297	195,143	192,339	251,372	280,995
Iran	15,994	0	0	0	0	0
Israel	0	0	228,327	0	186,411	0
Japan	13,497,310	22,539,254	37,298,770	72,030,517	42,534,932	41,841,317
Jordan	10,240	27,352	0	30,224	78,566	19,787
Korea, South	12,280	24,722	56,192	31,015	26,008	38,428
Kuwait	24,030	68,290	65,267	19,764	80,791	117,287
Lebanon	70,170	81,196	237,003	269,395	202,447	220,503
Malaysia	1,441,684	1,249,726	1,631,526	1,183,219	1,321,517	1,481,926
Oman	3,804	12,600	12,780	6,319	26,953	17,683
Pakistan	5,990	0	0	0	0	0
Philippines	0	0	0	72,586	624,294	978,616
Qatar	12,496	10,200	0	9,778	6,526	54,453
Saudi Arabia	867,956	435,567	971,485	1,422,180	1,471,839	1,250,831
Singapore	1,799,125	3,547,259	3,174,896	3,684,508	4,682,485	3,039,706
Taiwan	1,692,367	2,873,763	3,874,586	5,464,697	4,672,379	3,954,485

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period: Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1410500--Corn, canned, excl. pickled						
Germany, West	18,523,351	21,105,283	29,697,498	30,538,739	4,940,879	5,330,175
Greece	118,893	365,210	191,917	385,476	62,729	101,480
Ireland	430,819	360,565	344,233	517,085	31,250	29,232
Italy	180,183	87,833	91,458	99,570	0	0
Netherlands	581,160	1,136,286	449,819	273,992	73,523	33,000
United Kingdom	21,878,213	21,212,902	18,636,831	17,879,570	1,264,360	1,471,247
Total	57,659,460	57,295,961	65,323,791	61,334,085	7,401,565	10,352,846
OTHER W. EUROPE:						
Austria	283,694	54,600	161,386	182,332	31,360	27,800
Cyprus	54,513	46,860	42,217	32,004	0	0
Finland	60,380	105,730	154,670	296,262	41,600	14,112
Gibraltar	7,650	0	7,250	0	0	0
Iceland	8,324	40,663	4,040	44,338	36,960	0
Malta and Gozo	0	0	26,712	0	0	0
Norway	839,398	1,451,483	1,351,734	2,168,419	197,229	147,855
Portugal	152,980	0	111,229	230,683	0	25,544
Spain	510,058	453,210	576,001	1,059,887	60,840	44,700
Sweden	3,639,929	4,885,502	4,982,426	5,656,250	657,264	918,896
Switzerland	8,460,005	9,641,980	11,731,735	9,747,316	444,169	961,159
ASIA:						
Bahrain	47,621	80,027	12,960	0	0	0
Brunei	76,899	0	92,880	93,960	0	0
China	0	0	63,175	31,875	0	0
Hong Kong	6,593,133	6,030,734	9,383,733	7,190,705	656,376	1,890,378
India	12,903	0	0	0	0	0
Indonesia	133,867	111,197	24,207	153,074	0	0
Iran	0	0	0	0	0	0
Israel	0	0	0	0	0	0
Japan	31,233,184	35,698,234	53,129,647	83,971,830	10,832,765	13,684,741
Jordan	24,677	67,291	60,320	5,271	0	0
Korea, South	0	711,052	217,532	179,574	34,184	32,895
Kuwait	67,463	73,401	181,262	106,867	21,055	0
Lebanon	202,980	30,600	0	80,348	0	0
Malaysia	695,991	1,104,815	380,477	414,421	30,960	102,185
Oman	7,350	9,971	8,852	7,220	0	0
Pakistan	0	0	0	0	0	0
Philippines	211,088	220,240	774,237	1,040,624	178,603	126,225
Qatar	12,874	5,272	15,968	15,709	5,514	0
Saudi Arabia	1,297,301	823,000	714,111	845,433	54,636	65,799
Singapore	4,205,922	4,103,769	3,525,385	5,734,681	257,666	382,324
Taiwan	4,619,672	5,449,832	7,617,320	11,413,835	1,032,952	1,948,659

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1410500--Corn, canned, excl. pickled						
Thailand	317,200	425,827	375,254	169,860	406,626	631,050
United Arab Emirates	56,646	112,696	273,862	180,765	258,338	111,548
Yemen (Aden) (S Yemen)	0	0	0	0	0	0
Yemen (Sana)	0	0	0	0	0	12,623
Total	28,470,551	38,439,529	51,059,434	89,508,322	60,337,467	57,799,663
MIDDLE EAST	1,094,335	768,113	1,821,418	1,951,282	2,348,935	1,872,345
OCEANIA:						
AUSTRALIA	0	68,646	0	195,032	83,160	0
ALL OTHER	427,912	643,532	492,718	532,805	545,831	655,794
Total	427,912	712,178	492,718	727,837	628,991	655,794
AFRICA:						
ANGOLA	0	0	0	0	0	0
ALL OTHER	174,669	87,902	210,787	34,156	285,728	2,631,140
Total	174,669	87,902	210,787	34,156	285,728	2,631,140
1412220--Tomato pulp (puree), canned						
CANADA	1,336,942	433,991	343,204	820,277	265,225	192,477
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	55,256	173,935	243,345	325,668	26,732	36,696
ALL OTHER	429,715	224,662	498,514	97,603	97,952	73,219
TOTAL	484,971	398,597	741,859	423,271	124,684	109,915
SOUTH AMERICA	12,652	220,050	304,240	142,881	7,046	1,962
TOTAL	497,623	618,647	1,046,099	566,152	131,730	111,877
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	0	0	30,840	92,520	28,800	0
Denmark	0	4,410	0	0	0	1,290
Italy	71,824	0	0	0	0	0
Netherlands	0	0	0	0	0	4,360
United Kingdom	0	0	0	0	0	0
Total	71,824	4,410	30,840	92,520	28,800	5,650
OTHER W. EUROPE:						
Iceland	0	0	0	2,760	3,826	0
Malta and Gozo	0	8,640	0	0	0	0
Norway	0	0	4,800	0	0	0
Spain	0	0	0	0	0	0
Sweden	10,812	0	0	0	0	1,290
Switzerland	1,431,130	0	0	0	0	0
ASIA:						
Bahrain	36,140	34,594	12,931	0	10,920	15,540
Brunei	1,440	0	4,800	0	0	2,090
Hong Kong	4,300	88,515	21,343	10,125	36,075	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1410500--Corn, canned, excl. pickled						
Thailand	315,289	488,679	213,194	394,588	63,260	131,750
United Arab Emirates	187,050	198,985	249,948	251,536	73,895	60,268
Yemen (Aden) (S Yemen)	26,552	0	0	0	0	0
Yemen (Sana)	0	0	0	0	0	0
Total	49,971,816	55,207,099	76,665,208	111,931,551	13,241,866	18,425,224
MIDDLE EAST	1,873,868	1,288,547	1,243,421	1,312,384	155,100	126,067
OCEANIA:						
AUSTRALIA	10,925	0	0	0	0	0
ALL OTHER	800,299	732,696	649,428	892,032	94,076	145,714
Total	811,224	732,696	649,428	892,032	94,076	145,714
AFRICA:						
ANGOLA	0	0	0	17,339	17,339	0
ALL OTHER	942	0	5,000	0	0	0
Total	942	0	5,000	17,339	17,339	0
1412220--Tomato pulp (puree), canned						
CANADA	208,303	718,711	123,336	265,146	43,829	10,271
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	0	4,674	11,740	5,750	0	0
ALL OTHER	18,192	25,248	112,859	508,017	117,872	128,940
TOTAL	18,192	29,922	124,599	513,767	117,872	128,940
SOUTH AMERICA	0	0	0	0	0	0
TOTAL	18,192	29,922	124,599	513,767	117,872	128,940
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	0	0	0	0	0	0
Denmark	2,258	0	0	0	0	0
Italy	0	0	0	82,035	0	0
Netherlands	0	0	0	0	0	0
United Kingdom	0	18,600	14,448	64,873	18,450	0
Total	2,258	18,600	14,448	146,908	18,450	0
OTHER W. EUROPE:						
Iceland	0	0	0	0	0	0
Malta and Gozo	0	0	0	0	0	0
Norway	0	0	0	0	0	0
Spain	0	0	0	16,667	16,667	0
Sweden	0	0	0	0	0	0
Switzerland	0	0	2,317	0	0	0
ASIA:						
Bahrain	44,854	0	0	0	0	0
Brunei	2,400	2,880	27,825	41,900	9,800	0
Hong Kong	9,126	8,099	19,281	0	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1412220--Tomato pulp (puree), canned						
India	2,270	0	0	0	0	0
Indonesia	13,124	14,568	6,160	4,717	24,163	26,000
Israel	0	0	0	0	2,488	0
Japan	373,000	1,416,439	1,867,599	237,173	211,697	95,095
Jordan	0	4,500	0	31,990	0	0
Korea, South	44,371	8,000	8,000	13,437	0	8,783
Kuwait	6,000	8,208	6,000	34,329	2,232	11,600
Malaysia	14,962	15,265	14,228	51,577	24,373	19,950
Philippines	0	0	0	0	4,545	1,580
Qatar	0	0	0	1,025	0	10,542
Saudi Arabia	275,432	87,275	197,235	74,420	375,013	316,233
Singapore	51,475	117,419	109,565	127,077	127,300	25,646
United Arab Emirates	8,050	18,700	0	7,996	52,997	14,265
Total	830,564	1,813,483	2,247,861	593,866	871,803	547,324
MIDDLE EAST	325,622	153,277	216,166	149,760	443,650	368,180
OCEANIA:						
AUSTRALIA	0	0	0	0	0	0
ALL OTHER	0	0	0	8,250	0	5,800
Total	0	0	0	8,250	0	5,800
AFRICA:						
ALL OTHER	40,488	440	0	3,300	0	0
Total	40,488	440	0	3,300	0	0
1412240--Tmto sc, ex ctsp & chili sc						
CANADA	2,751,698	3,365,960	2,340,624	2,828,772	2,557,179	2,121,032
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	535,026	1,255,187	1,202,612	1,420,770	188,303	1,854
ALL OTHER	516,887	624,744	644,259	1,576,377	531,425	585,905
TOTAL	1,051,913	1,879,931	1,846,871	2,997,147	719,728	587,759
SOUTH AMERICA	102,100	46,058	135,693	182,719	64,098	61,073
TOTAL	1,154,013	1,925,989	1,982,564	3,179,866	783,826	648,832
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	0
Belgium and Luxembourg	0	6,600	0	13,954	2,200	7,740
Denmark	61,285	52,565	40,667	23,120	25,960	25,293
France	0	999	0	0	0	0
Germany, West	0	31,952	0	0	0	0
Greece	7,362	3,786	8,872	1,566	6,325	0
Italy	0	0	0	37,490	0	3,652
Netherlands	1,368	58,683	79,417	61,630	11,311	19,021
United Kingdom	1,725	30,271	29,771	59,000	70,640	101,070

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	 1988
1412220--Tomato pulp (puree), canned						
India	0	0	0	0	0	0
Indonesia	5,679	2,463	0	0	0	0
Israel	0	0	0	0	0	0
Japan	190,756	160,494	274,044	1,097,591	42,808	71,660
Jordan	0	0	0	0	0	0
Korea, South	60,720	214,634	12,666	32,000	32,000	0
Kuwait	0	20,325	17,680	4,200	0	0
Malaysia	10,606	78,732	119,520	236,971	101,729	53,868
Philippines	0	0	0	0	0	0
Qatar	0	0	0	0	0	0
Saudi Arabia	130,312	61,852	62,588	36,000	4,500	20,700
Singapore	64,733	21,600	6,650	114,480	36,750	13,050
United Arab Emirates	9,295	0	0	0	0	0
Total	528,481	571,079	540,254	1,563,142	227,587	159,278
MIDDLE EAST	184,461	82,177	80,268	40,200	4,500	20,700
OCEANIA:						
AUSTRALIA	0	61,330	7,098	0	0	0
ALL OTHER	0	0	0	0	0	0
Total	0	61,330	7,098	0	0	0
AFRICA:						
ALL OTHER	0	0	0	0	0	0
Total	0	0	0	0	0	0
1412240--Tmto sc, ex ctsp & chili sc						
CANADA	1,860,569	1,554,636	2,511,781	2,331,547	285,401	368,904
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	78,007	281,818	439,485	524,914	0	40,331
ALL OTHER	667,048	402,772	282,056	371,573	37,508	98,462
TOTAL	745,055	684,590	721,541	896,487	37,508	138,793
SOUTH AMERICA	62,562	0	34,719	10,272	10,272	0
TOTAL	807,617	684,590	756,260	906,759	47,780	138,793
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	4,400
Belgium and Luxembourg	5,280	3,520	2,627	11,824	7,424	0
Denmark	24,168	4,400	0	17,600	0	0
France	0	0	0	0	0	0
Germany, West	0	0	0	34,980	34,980	0
Greece	34,062	0	0	0	0	0
Italy	0	0	0	0	0	0
Netherlands	5,323	0	0	22,938	0	0
United Kingdom	143,831	46,166	49,529	41,030	34,980	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1412240--Tmto sc, ex ctsp & chili sc						
Total	71,740	184,856	158,727	196,760	116,436	156,776
OTHER W. EUROPE:						
Cyprus	5,948	0	7,890	6,525	4,725	2,430
Finland	0	0	0	0	0	0
Iceland	16,795	24,888	26,525	46,490	36,540	7,759
Norway	0	0	4,410	2,128	10,993	18,779
Portugal	4,000	0	0	0	0	0
Spain	0	0	0	0	0	0
Sweden	9,451	0	0	3,040	165,181	31,202
Switzerland	0	0	0	0	1,375	5,333
ASIA:						
Bahrain	18,489	3,539	10,906	27,111	18,397	12,982
Hong Kong	44,515	58,928	79,980	152,856	317,227	449,952
India	0	0	8,416	0	0	0
Indonesia	30,902	6,559	19,322	116,578	21,443	21,680
Israel	1,235	0	0	5,328	2,570	0
Japan	643,442	547,390	635,659	896,451	882,303	1,549,123
Jordan	0	8,400	11,000	0	0	0
Korea, South	4,610	7,920	5,631	0	0	0
Kuwait	21,689	48,970	10,520	67,768	13,808	45,834
Lebanon	2,926	0	9,443	5,933	6,000	7,393
Malaysia	10,958	6,910	8,916	8,212	14,722	18,123
Oman	4,346	2,444	0	0	1,356	108,083
Pakistan	2,648	4,674	3,142	0	0	0
Philippines	0	0	0	0	4,095	30,804
Qatar	10,166	0	0	2,190	4,374	0
Saudi Arabia	167,611	112,832	181,857	92,995	296,018	387,734
Singapore	75,555	140,784	59,998	329,349	170,876	50,002
Syria	0	0	2,284	35,914	1,988	0
Taiwan	14,757	0	30,722	6,403	1,148	35,457
Thailand	2,117	20,200	31,841	12,580	10,198	4,800
United Arab Emirates	61,113	48,267	34,413	24,970	15,883	12,240
Total	1,117,079	1,017,817	1,144,050	1,784,638	1,782,406	2,734,207
MIDDLE EAST	287,575	224,452	260,423	262,209	360,394	574,266
OCEANIA:						
AUSTRALIA	0	0	12,720	79,573	0	179,581
NEW ZEALAND	0	0	0	0	0	0
ALL OTHER	548,235	858,784	704,975	760,251	823,373	752,317
Total	548,235	858,784	717,695	839,824	823,373	931,898
AFRICA:						
ALL OTHER	59,897	16,610	38,637	125,753	33,039	43,174
Total	59,897	16,610	38,637	125,753	33,039	43,174

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1984	1985	1986	1987	January-February 1987	January-February 1988
1412240--Tmto sc, ex ctsp & chili sc						
Total	212,664	54,086	52,156	128,372	77,384	4,400
OTHER W. EUROPE:						
Cyprus	2,430	2,430	3,240	0	0	0
Finland	14,067	0	0	0	0	0
Iceland	2,841	5,400	0	3,789	3,789	0
Norway	6,051	0	58,809	0	0	0
Portugal	0	0	0	0	0	0
Spain	0	0	28,239	0	0	0
Sweden	38,928	0	0	0	0	0
Switzerland	0	0	0	0	0	0
ASIA:						
Bahrain	5,940	1,980	0	43,809	0	0
Hong Kong	226,702	84,068	137,033	235,896	2,963	19,153
India	0	0	0	0	0	0
Indonesia	27,012	23,229	0	0	0	0
Israel	0	0	6,000	62,176	33,180	0
Japan	1,394,859	1,305,267	1,133,592	1,410,448	233,747	491,946
Jordan	0	0	0	0	0	8,593
Korea, South	38,587	9,990	15,322	22,738	11,816	0
Kuwait	9,950	9,168	11,198	2,462	0	0
Lebanon	6,930	0	0	0	0	0
Malaysia	12,387	2,640	3,938	25,720	0	0
Oman	45,900	0	0	0	0	0
Pakistan	0	0	0	0	0	0
Philippines	0	0	0	0	0	0
Qatar	0	0	0	0	0	0
Saudi Arabia	234,163	200,560	394,367	283,608	36,791	55,640
Singapore	59,806	34,087	155,999	88,222	11,341	71,187
Syria	0	0	0	0	0	0
Taiwan	6,472	0	45,369	8,025	4,395	0
Thailand	0	4,800	1,975	0	0	0
United Arab Emirates	21,759	0	10,516	11,559	7,163	41,965
Total	2,090,467	1,675,789	1,915,309	2,194,663	341,396	688,484
MIDDLE EAST	324,642	211,708	422,081	403,614	77,134	106,198
OCEANIA:						
AUSTRALIA	94,031	0	0	251,045	59,260	0
NEW ZEALAND	0	0	0	19,094	0	17,799
ALL OTHER	761,952	714,636	861,142	640,346	112,413	96,968
Total	855,983	714,636	861,142	910,485	171,673	114,767
AFRICA:						
ALL OTHER	3,308	31,100	0	3,067	3,067	0
Total	3,308	31,100	0	3,067	3,067	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner — Time period	1978	1979	1980	1981	1982	1983
1412260--Tomato paste, canned						
CANADA	19,151,046	27,610,611	19,341,372	20,246,528	18,573,141	20,860,260
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	81,611	97,448	31,488	19,124	8,170	720
ALL OTHER	1,071,476	1,439,590	1,518,022	1,751,120	1,405,260	775,627
TOTAL	1,153,087	1,537,038	1,549,510	1,770,244	1,413,430	776,347
SOUTH AMERICA	2,819,630	2,968,693	249,660	174,229	227,688	92,711
TOTAL	3,972,717	4,505,731	1,799,170	1,944,473	1,641,118	869,058
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	174,450	64,800	40,092	72,000	70,200	35,100
Denmark	5,760	2,016	2,016	6,225	0	2,016
France	0	0	0	0	0	0
Ireland	0	0	0	0	0	0
Italy	0	0	0	0	30,600	0
Netherlands	0	0	0	38,100	10,823	900
United Kingdom	36,046	0	3,120	0	2,463	0
Total	216,256	66,816	45,228	116,325	114,086	38,016
OTHER W. EUROPE:						
Cyprus	0	0	1,800	0	0	0
Iceland	0	0	0	0	0	2,330
Portugal	0	0	0	0	0	0
Spain	0	0	0	35,663	0	0
Sweden	0	6,468	0	1,440	0	0
Switzerland	0	0	0	0	0	43,667
Turkey	0	0	0	0	0	0
ASIA:						
Bahrain	12,117	4,500	43,200	53,642	1,308	8,964
Hong Kong	536,077	566,800	564,782	408,141	342,380	401,136
India	0	1,530	2,260	0	0	0
Indonesia	47,211	103,340	57,298	36,078	59,659	54,507
Iran	3,500	0	0	0	0	0
Israel	0	0	0	0	5,786	0
Japan	1,904,512	2,259,008	2,124,955	422,290	852,314	756,255
Jordan	0	0	0	0	0	2,100
Korea, South	42,446	20,872	109,419	75,162	106,953	145,629
Kuwait	0	7,560	66,153	7,000	0	33,990
Lebanon	0	0	0	0	1,080	0
Malaysia	7,560	0	3,990	14,240	7,048	3,150
Oman	0	0	1,980	16,923	0	0
Pakistan	0	1,296	0	0	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1412260--Tomato paste, canned						
CANADA	18,512,307	12,722,330	13,602,722	15,225,974	1,220,475	2,498,333
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	0	14,500	5,401	21,078	0	0
ALL OTHER	847,538	593,580	778,922	2,577,386	243,607	521,748
TOTAL	847,538	608,080	784,323	2,598,464	243,607	521,748
SOUTH AMERICA	128,376	33,549	9,095	11,578	0	0
TOTAL	975,914	641,629	793,418	2,610,042	243,607	521,748
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	36,000	0	0	0	0	0
Denmark	3,024	0	0	0	0	0
France	0	0	139,878	141,521	30,409	0
Ireland	0	0	2,100	0	0	0
Italy	58,335	0	0	0	0	0
Netherlands	0	14,541	6,023	38,545	33,193	4,000
United Kingdom	591	440,000	428,346	44,100	20,795	0
Total	97,950	454,541	576,347	224,166	84,397	4,000
OTHER W. EUROPE:						
Cyprus	0	0	0	0	0	0
Iceland	0	0	1,962	0	0	0
Portugal	39,000	0	127,913	0	0	0
Spain	0	0	0	0	0	0
Sweden	0	0	0	0	0	0
Switzerland	0	471,834	17,062	0	0	0
Turkey	0	0	91,360	0	0	0
ASIA:						
Bahrain	11,488	0	0	0	0	0
Hong Kong	263,495	198,376	198,935	275,436	21,908	88,935
India	0	0	0	0	0	0
Indonesia	119,127	43,364	56,900	21,420	0	0
Iran	0	0	0	0	0	0
Israel	950	0	0	0	0	0
Japan	425,973	396,218	424,882	720,458	156,437	336,008
Jordan	0	0	0	0	0	7,409
Korea, South	213,210	334,075	534,041	954,463	129,813	129,846
Kuwait	720	18,435	10,831	0	0	0
Lebanon	0	0	0	0	0	0
Malaysia	4,860	19,771	24,510	63,557	11,405	0
Oman	3,816	0	0	0	0	0
Pakistan	0	0	0	0	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period: Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1412260--Tomato paste, canned						
Philippines	264,229	178,434	0	117,581	57,600	87,457
Qatar	14,762	32,730	0	3,156	0	0
Saudi Arabia	147,345	418,531	753,154	694,448	550.502	503,231
Singapore	131,601	173,576	168,709	145,681	91,573	96,989
Syria	0	0	28,011	0	0	0
Taiwan	9,195	0	6,180	0	0	3,804
Thailand	7,244	12,382	106,909	38,315	5,400	1,806
United Arab Emirates	68,414	18,816	108,015	48,800	61,104	17,230
Total	3,196,213	3,799,375	4,145,015	2,081,457	2,142,707	2,116,248
MIDDLE EAST	246,138	482,137	1,000,513	823,969	619,780	565,515
OCEANIA:						
AUSTRALIA	8,498	2,229,200	31,080	19,534	0	0
NEW ZEALAND	0	0	0	0	0	0
ALL OTHER	27,004	6,855	21,770	17,690	4,700	10,572
Total	35,502	2,236,055	52,850	37,224	4,700	10,572
AFRICA:						
ALL OTHER	75,329	107,370	15,933	90,636	80,411	23,827
Total	75,329	107,370	15,933	90,636	80,411	23,827
1412280--Tomatoes, canned, nspf						
CANADA	24,937,960	32,148,274	28,977,972	28,087,985	17,022,323	10,701,324
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	40,489	27,642	13,762	58,480	17,524	0
ALL OTHER	802,935	739,966	1,006,050	837,244	891,364	578,400
TOTAL	843,424	767,608	1,019,812	895,724	908,888	578,400
SOUTH AMERICA	85,254	5,043,455	1,433,309	478,234	59,763	8,834
TOTAL	928,678	5,811,063	2,453,121	1,373,958	968,651	587,234
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	4,800	288,480	9,600	66,840	103,277	0
Denmark	11,784	2,880	11,772	9,660	4,890	7,800
France	0	0	5,444	0	0	0
Germany, West	0	4,200	23,637	0	0	0
Greece	0	0	0	0	0	0
Italy	37,800	0	6,198	238,545	0	1,256
Netherlands	0	0	10,462	4,800	0	0
United Kingdom	0	487,488	0	0	2,400	13,600
Total	54,384	783,048	67,113	319,845	110,567	22,656
OTHER W. EUROPE:						
Cyprus	0	5,546	3,188	0	0	0
Finland	4,800	14,400	4,800	0	0	0
Iceland	0	0	0	4,800	4,038	6,089

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period: Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1412260--Tomato paste, canned						
Philippines	208,820	39,645	180,637	14,388	0	11,376
Qatar	0	0	0	0	0	0
Saudi Arabia	125,111	151,353	102,063	58,930	35,692	21,960
Singapore	94,553	81,440	204,402	208,703	32,020	4,900
Syria	0	0	0	0	0	0
Taiwan	46,230	0	127,433	34,965	0	0
Thailand	3,600	0	0	0	0	0
United Arab Emirates	29,337	11,250	15,696	7,128	7,128	0
Total	1,551,290	1,293,927	1,880,330	2,359,448	394,403	600,434
MIDDLE EAST	171,422	181,038	128,590	66,058	42,820	29,369
OCEANIA:						
AUSTRALIA	0	0	0	0	0	0
NEW ZEALAND	0	67,656	0	0	0	0
ALL OTHER	15,351	5,920	4,489	15,040	0	19,296
Total	15,351	73,576	4,489	15,040	0	19,296
AFRICA:						
ALL OTHER	11,465	33,021	28,525	5,828	0	0
Total	11,465	33,021	28,525	5,828	0	0
1412280--Tomatoes, canned, nspf						
CANADA	9,182,089	7,138,694	5,154,148	4,163,680	543,603	932,402
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	4,000	0	0	7,919	0	0
ALL OTHER	551,427	449,005	583,092	832,069	104,182	123,833
TOTAL	555,427	449,005	583,092	839,988	104,182	123,833
SOUTH AMERICA	9,372	4,550	68,666	42,409	26,533	0
TOTAL	564,799	453,555	651,758	882,397	130,715	123,833
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	0	36,500	39,330	189,045	151,236	0
Denmark	5,820	0	0	0	0	0
France	0	0	0	0	0	0
Germany, West	0	0	0	0	0	0
Greece	10,346	0	0	0	0	0
Italy	0	0	0	24,669	0	0
Netherlands	0	0	0	0	0	0
United Kingdom	2,400	0	11,386	46,588	0	0
Total	18,566	36,500	50,716	260,302	151,236	0
OTHER W. EUROPE:						
Cyprus	0	0	0	0	0	0
Finland	0	0	0	0	0	0
Iceland	2,400	0	0	0	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1978	1979	1980	1981	1982	1983
1412280--Tomatoes, canned, nspf						
Norway	0	62,700	0	10,572	0	0
Portugal	4,000	0	0	3,480	0	0
Spain	0	0	0	8,802	0	614,685
Sweden	8,400	8,400	43,200	3,750	0	0
ASIA:						
Bahrain	6,930	47,232	28,709	3,045	6,938	18,585
Hong Kong	225,155	277,015	171,419	203,591	229,945	355,090
India	2,550	0	9,000	0	0	0
Indonesia	30,158	6,480	6,825	0	128,425	113,770
Iran	9,370	0	0	0	0	0
Iraq	6,647	0	0	0	0	0
Israel	0	9,558	0	0	8,852	0
Japan	463,107	282,345	778,971	333,676	145,271	514,382
Jordan	0	0	9,000	0	33,250	0
Korea, South	39,016	15,000	3,706	1,256	6,816	4,000
Kuwait	49,860	153,164	182,679	145,756	44,128	79,509
Lebanon	2,876	4,800	12,019	13,692	7,939	6,181
Malaysia	0	18,118	31,822	27,201	6,810	7,800
Oman	4,800	35,526	95,211	54,353	32,303	40,000
Pakistan	0	7,138	6,202	0	0	0
Philippines	0	0	0	0	39,316	51,892
Qatar	16,084	17,990	18,543	7,966	1,800	0
Saudi Arabia	898,013	622,301	733,096	953,099	853,745	556,682
Singapore	171,471	232,525	289,325	228,645	152,747	199,557
Taiwan	0	6,750	0	0	0	0
Thailand	17,171	0	0	0	1,450	0
United Arab Emirates	71,264	117,236	203,944	268,529	116,471	44,130
Total	2,014,502	1,862,718	2,580,471	2,240,809	1,816,206	1,893,578
MIDDLE EAST	1,065,874	1,007,347	1,283,201	1,446,440	1,105,426	747,087
OCEANIA:						
AUSTRALIA	0	477,613	572,935	6,120	0	0
ALL OTHER	170,152	351,912	241,221	113,809	54,910	59,785
Total	170,152	829,525	814,156	119,929	54,910	59,785
AFRICA:						
ANGOLA	0	0	0	0	0	0
ALL OTHER	85,516	158,707	2,964	19,051	1,040	6,000
Total	85,516	158,707	2,964	19,051	1,040	6,000
1451200--Almonds,not shlld or roasted						
CANADA	782,561	479,494	917,469	1,239,879	1,032,145	758,375

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1412280--Tomatoes, canned, nspf						
Norway	0	12,168	0	0	0	0
Portugal	0	0	0	0	0	0
Spain	46,000	381,898	225,999	89,933	0	0
Sweden	0	0	0	0	0	0
ASIA:						
Bahrain	38,498	3,450	0	0	0	0
Hong Kong	228,691	210,491	123,936	53,618	5,304	8,946
India	0	0	0	0	0	0
Indonesia	231,825	21,894	0	0	0	0
Iran	0	0	0	0	0	0
Iraq	0	0	0	0	0	0
Israel	0	0	94,166	0	0	0
Japan	529,507	290,621	507,386	821,294	10,725	60,931
Jordan	0	0	0	0	0	0
Korea, South	66,419	149,489	43,802	29,764	0	0
Kuwait	23,788	25,800	53,222	55,392	36,642	0
Lebanon	3,187	0	0	0	0	0
Malaysia	32,458	9,375	31,211	5,535	0	5,505
Oman	288,480	120,000	0	0	0	0
Pakistan	0	0	0	0	0	0
Philippines	5,022	0	9,744	4,375	0	0
Qatar	0	0	0	0	0	0
Saudi Arabia	330,666	149,528	245,000	135,336	41,693	0
Singapore	151,655	148,375	140,567	262,565	0	0
Taiwan	0	6,134,635	6,113,617	1,026,307	700,040	146,014
Thailand	0	0	0	0	0	0
United Arab Emirates	64,271	3,000	4,200	23,100	13,140	0
Total	2,004,467	7,266,658	7,366,851	2,417,286	807,544	221,396
MIDDLE EAST	758,890	301,778	396,588	213,828	91,475	0
OCEANIA:						
AUSTRALIA	0	608,218	380,860	108,528	0	0
ALL OTHER	111,310	15,307	76,337	83,701	42,132	12,698
Total	111,310	623,525	457,197	192,229	42,132	12,698
AFRICA:						
ANGOLA	11,308	0	0	0	0	0
ALL OTHER	9,645	25,533	0	34,085	34,085	0
Total	20,953	25,533	0	34,085	34,085	0
1451200--Almonds,not shlld or roasted:						
CANADA	306,511	1,029,814	1,225,681	1,031,864	159,961	244,840

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1978	1979	1980	1981	1982	1983
1451200--Almonds,not shild or roasted:						
CENTRAL AMERICA:						
MEXICO	165,270	287,234	388,105	296,255	140,441	93,120
ALL OTHER	23,884	58,964	49,405	36,913	18,970	16,263
TOTAL	189,154	346,198	437,510	333,168	159,411	109,383
SOUTH AMERICA	65,185	198,544	247,166	56,592	57,970	56,659
TOTAL	254,339	544,742	684,676	389,760	217,381	166,042
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	0	0	0	0	66,000	2,200
Denmark	39,600	11,300	0	0	44,000	0
France	64,026	71,000	572,000	286,100	30,000	0
Germany, West	643,710	450,223	163,341	494,405	87,000	122,367
Greece	0	0	0	0	0	0
Ireland	0	0	0	0	0	0
Italy	0	70,000	0	42,500	39,600	30,350
Netherlands	10,000	214,500	0	0	66,000	44,000
United Kingdom	161,060	73,525	45,390	1,543	143,800	128,500
Total	918,396	890,548	780,731	824,548	476,400	327,417
OTHER W. EUROPE:						
Austria	0	875	0	0	0	0
Finland	0	0	40,000	0	0	46,100
Norway	108,346	96,099	46,593	2,900	72,240	0
Portugal	0	0	0	0	0	0
Spain	0	0	0	0	82,673	0
Sweden	128,353	55,660	116,500	0	40,952	88,000
Switzerland	0	22,000	0	0	1,500	66,000
ASIA:						
Bahrain	0	0	0	0	600	3,060
Bangladesh	0	0	0	5,000	0	0
China	0	219,826	0	0	0	0
Hong Kong	20,913	33,765	18,788	7,920	22,165	12,945
India	39,573	17,092	68,500	2,981,674	8,117,774	3,477,812
Indonesia	0	0	0	0	40,600	0
Israel	0	0	0	20,000	0	0
Japan	685,600	585,600	318,755	141,061	63,530	158,223
Jordan	0	4,000	58,043	1,760	20,000	17,250
Korea, South	0	0	6,568	3,740	188,976	864,720
Kuwait	103,312	70,000	76,000	164,330	52,500	109,293
Lebanon	0	0	0	0	0	0
Malaysia	0	0	0	0	0	480
Oman	0	0	0	0	0	34,000

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1451200--Almonds,not shlld or roasted:						
CENTRAL AMERICA:						
MEXICO	632,229	1,136,482	656,305	578,756	80,755	52,050
ALL OTHER	140,028	71,310	54,572	66,124	2,689	2,748
TOTAL	772,257	1,207,792	710,877	644,880	83,444	54,798
SOUTH AMERICA	53,611	150,644	66,109	281,926	0	50,950
TOTAL	825,868	1,358,436	776,986	926,806	83,444	105,748
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	18,750	20,000	44,000	42,000	0	0
Denmark	0	0	42,000	0	0	0
France	130,000	280,000	383,750	508,824	0	64,439
Germany, West	156,000	327,500	418,606	106,903	0	88,000
Greece	0	0	0	244,000	0	42,000
Ireland	0	0	0	22,000	0	0
Italy	44,000	176,000	0	326,479	0	0
Netherlands	0	102,009	61,800	295,395	0	34,000
United Kingdom	44,000	11,000	142,750	170,467	1,635	28,010
-Total	392,750	916,509	1,092,906	1,716,068	1,635	256,449
OTHER W. EUROPE:						
Austria	0	0	0	44,000	0	0
Finland	0	0	0	0	0	0
Norway	79,920	79,080	43,000	1,560	0	0
Portugal	0	0	0	34,000	0	0
Spain	2,200	0	0	131,011	0	0
Sweden	109,750	0	0	0	0	0
Switzerland	43,667	0	155,675	44,000	0	0
ASIA:						
Bahrain	840	1,087	0	0	0	0
Bangladesh	0	0	0	0	0	0
China	0	0	0	0	0	0
Hong Kong	12,024	11,040	20,040	4,068	0	5,253
India	2,753,131	7,311,355	3,162,296	4,111,767	505,808	495,000
Indonesia	5,795	0	0	0	0	0
Israel	0	114,598	230,500	663,275	0	236,146
Japan	427,259	262,810	451,618	758,430	18,804	627,724
Jordan	155,854	198,000	132,000	274,311	31,190	176,000
Korea, South	333,390	0	0	4,791	0	0
Kuwait	65,650	467,780	139,000	253,362	0	44,000
Lebanon	1,000	0	0	0	0	0
Malaysia	0	0	0	0	0	0
Oman	0	0	0	0	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1978	1979	1980	1981	1982	1983
1451200--Almonds,not shlld or roasted						
Philippines	0	0	0	1,200	0	0
Saudi Arabia	1,924	119,148	30,000	176,901	319,500	313,650
Singapore	5,670	21,604	133,887	4,560	29,500	24,697
Taiwan	6,745	7,998	68,318	0	139,307	2,000
Thailand	0	1,800	0	0	0	0
United Arab Emirates	1,200	2,400	0	0	0	34,000
Total	864,937	1,083,233	778,859	3,508,146	8,994,452	5,052,130
MIDDLE EAST	106,436	195,548	164,043	362,991	392,600	511,253
OCEANIA:						
AUSTRALIA	8,500	2,500	136,558	101,700	28,200	0
NEW ZEALAND	16,300	0	0	3,636	13,750	14,249
ALL OTHER	810	450	0	2,330	0	2,542
Total	25,610	2,950	136,558	107,666	41,950	16,791
AFRICA:						
ALL OTHER	0	960	0	2,073	5,000	1,500
Total	0	960	0	2,073	5,000	1,500
1452800--Walnuts,not shlld or roasted						
CANADA	2,221,951	2,563,878	2,341,769	3,385,452	3,993,861	4,150,479
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	154,854	163,789	110,972	159,823	8,922	24,170
ALL OTHER	190,189	127,055	177,864	297,684	153,888	118,996
TOTAL	345,043	290,844	288,836	457,507	162,810	143,166
SOUTH AMERICA	2,585,479	4,720,621	2,080,014	1,803,908	3,499,718	1,550,244
TOTAL	2,930,522	5,011,465	2,368,850	2,261,415	3,662,528	1,693,410
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	0
Belgium and Luxembourg	2,566,686	1,228,522	1,306,823	1,329,278	1,211,730	2,038,227
Denmark	1,284,693	955,947	1,215,797	1,149,994	927,865	459,317
France	1,881,282	2,537,944	2,987,287	11,434,038	3,288,484	745,391
Germany, West	21,492,718	20,517,063	32,864,428	34,011,936	20,513,360	16,157,517
Greece	0	0	0	0	0	20,500
Italy	4,811,551	8,299,842	13,830,477	11,126,332	10,222,375	8,683,808
Netherlands	2,965,579	2,637,485	4,450,567	7,322,600	9,250,919	8,755,282
United Kingdom	727,389	713,660	755,180	1,364,015	898,456	858,884
Total	35,729,898	36,890,463	57,410,559	67,738,193	46,313,189	37,718,926
OTHER W. EUROPE:						
Austria	0	293,132	502,098	196,981	346,866	59,875
Cyprus	0	0	0	0	0	35,835
Finland	67,190	33,310	72,425	37,143	64,595	29,211
Iceland	1,354	1,190	0	0	661	952

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1984	1985	1986	1987	January-February 1987	January-February 1988
1451200--Almonds,not shlld or roasted						
Philippines	0	0	5,375	0	0	0
Saudi Arabia	187,695	299,305	347,552	324,445	44,267	59,884
Singapore	40,786	3,960	6,409	26,943	0	32,625
Taiwan	8,182	22,336	43,890	74,455	0	0
Thailand	0	0	0	13,625	0	0
United Arab Emirates	34,000	59,441	22,000	77,250	0	294,000
Total	4,025,606	8,751,712	4,560,680	6,586,722	600,069	1,970,632
MIDDLE EAST	445,039	1,140,211	871,052	1,592,643	75,457	810,030
OCEANIA:						
AUSTRALIA	96,987	0	12,465	0	0	0
NEW ZEALAND	0	5,500	0	0	0	0
ALL OTHER	0	0	0	0	0	0
Total	96,987	5,500	12,465	0	0	0
AFRICA:						
ALL OTHER	0	1,225,800	122,807	0	0	24,250
Total	0	1,225,800	122,807	0	0	24,250
1452800--Walnuts,not shlld or roasted						
CANADA	5,165,742	6,792,312	4,457,933	4,857,582	373,347	304,267
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	0	15,781,891	10,165,443	7,680,361	1,220,481	1,386,694
ALL OTHER	114,009	199,921	307,909	225,013	0	0
TOTAL	114,009	15,981,812	10,473,352	7,905,374	1,220,481	1,386,694
SOUTH AMERICA	962,227	1,608,489	3,773,411	492,375	41,293	142,823
TOTAL	1,076,236	17,590,301	14,246,763	8,397,749	1,261,774	1,529,517
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	20,668
Belgium and Luxembourg	2,449,362	3,330,085	888,399	1,044,965	40,586	0
Denmark	834,374	452,684	793,703	565,612	11,500	0
France	4,616,427	4,440,420	1,832,513	2,118,050	41,336	44,092
Germany, West	21,382,747	23,393,849	25,622,619	23,247,613	358,059	0
Greece	0	0	0	405,016	0	0
Italy	8,996,582	8,489,014	9,670,862	12,067,724	328,822	82,672
Netherlands	15,002,041	7,303,877	13,614,041	20,867,262	393,581	81,294
United Kingdom	2,583,017	744,287	922,248	1,333,529	31,508	0
Total	55,864,550	48,154,216	53,344,385	61,649,771	1,205,392	228,726
OTHER W. EUROPE:						
Austria	371,941	592,872	487,214	52,500	0	0
Cyprus	0	0	0	0	0	0
Finland	53,616	50,354	15,451	37,699	0	0
Iceland	1,235	0	0	0	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period:	1978	1979	1980	1981	1982	1983
1452800--Walnuts,not shlld or roasted:						
Malta and Gozo	14,801	0	0	0	1,103	0
Norway	633,824	714,247	794,151	809,655	880,048	756,793
Portugal	0	0	0	193,606	40,000	78,500
Spain	15,227,407	15,198,220	30,816,216	25,301,673	20,971,049	10,772,828
Sweden	667,718	817,577	842,927	922,959	968,671	556,315
Switzerland	547,195	1,330,956	1,287,024	1,313,028	1,205,382	540,981
ASIA:						
Bahrain	0	0	0	25,000	35,595	25,769
Brunei	2,976	0	0	0	0	0
Hong Kong	9,240	8,544	8,880	10,320	12,706	6,720
India	0	0	0	66,400	66,200	0
Indonesia	0	0	0	1,324	0	0
Israel	493,177	392,627	799,147	1,099,396	696,333	885,328
Japan	0	5,850	45,467	126,280	44,000	68,590
Jordan	0	5,000	0	40,000	0	12,120
Korea, South	0	12,695	0	0	0	0
Kuwait	0	0	0	0	0	0
Lebanon	52,500	50,150	256,527	398,721	1,678,369	294,298
Malaysia	0	0	0	0	1,200	0
Oman	0	0	0	0	0	1,000
Philippines	0	40,000	0	0	0	0
Saudi Arabia	5,898	3,960	11,023	3,858	0	44,245
Singapore	2,592	49,105	7,200	4,800	3,240	20,399
Syria	0	0	0	0	82,507	317,462
Taiwan	0	10,798	42,024	48,706	40,092	50,426
Thailand	0	0	2,540	1,323	0	0
United Arab Emirates	37,992	7,200	3,600	9,229	0	0
Total	604,375	585,929	1,176,408	1,835,357	2,660,242	1,726,357
MIDDLE EAST	589,567	458,937	1,070,297	1,576,204	2,492,804	1,580,222
OCEANIA:						
AUSTRALIA	1,311,120	1,388,745	1,306,428	1,895,893	1,500,583	1,328,094
NEW ZEALAND	0	9,000	13,000	21,250	13,173	24,068
ALL OTHER	780	0	3,637	1,920	0	2,160
Total	1,311,900	1,397,745	1,323,065	1,919,063	1,513,756	1,354,322
AFRICA:						
ALL OTHER	135,933	316,566	130,385	133,627	258,379	209,799
Total	135,933	316,566	130,385	133,627	258,379	209,799
1454300--Almonds,shelled,not blanched						
CANADA	5,122,516	3,574,715	4,907,171	4,902,897	6,819,754	7,377,564

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1452800--Walnuts,not shlld or roasted						
Malta and Gozo	0	25,586	109,444	67,725	0	0
Norway	896,320	873,129	999,560	855,079	0	0
Portugal	0	0	480,065	696,426	140,000	0
Spain	19,200,976	18,158,296	19,402,290	31,387,625	1,007,917	274,083
Sweden	790,860	801,776	940,721	333,953	18,928	0
Switzerland	1,166,761	1,262,667	976,541	1,065,358	0	67,240
ASIA:						
Bahrain	31,301	0	9,520	0	0	0
Brunei	0	0	0	0	0	0
Hong Kong	3,912	0	11,520	22,387	3,606	0
India	0	0	0	0	0	0
Indonesia	0	0	0	0	0	0
Israel	435,539	632,942	860,426	826,473	380,329	258,161
Japan	34,500	155,700	1,458,000	5,543,065	355,000	504,024
Jordan	11,023	0	0	0	0	0
Korea, South	0	0	0	0	0	0
Kuwait	0	0	2,500	0	0	0
Lebanon	41,336	520,837	0	0	0	0
Malaysia	720	0	0	0	0	0
Oman	0	0	0	0	0	0
Philippines	0	0	0	31,356	0	48,332
Saudi Arabia	26,723	11,023	85,512	62,511	17,511	20,000
Singapore	5,763	3,867	0	14,807	0	2,360
Syria	0	0	0	0	0	0
Taiwan	58,896	13,531	0	149,197	21,000	23,068
Thailand	0	0	0	0	0	0
United Arab Emirates	7,985	0	0	14,667	0	0
Total	657,698	1,337,900	2,427,478	6,664,463	777,446	855,945
MIDDLE EAST	553,907	1,164,802	957,958	903,651	397,840	278,161
OCEANIA:						
AUSTRALIA	1,751,636	1,370,664	1,129,702	769,872	20,750	99,092
NEW ZEALAND	0	5,000	0	0	0	0
ALL OTHER	0	0	0	0	0	0
Total	1,751,636	1,375,664	1,129,702	769,872	20,750	99,092
AFRICA:						
ALL OTHER	151,214	87,500	233,035	0	0	0
Total	151,214	87,500	233,035	0	0	0
1454300--Almonds,shelled,not blanched						
CANADA	6,811,473	5,990,919	9,229,588	6,778,405	754,326	623,211

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1978	1979	1980	1981	1982	1983
1454300--Almonds,shelled,not blanched:						
CENTRAL AMERICA:						
MEXICO	321,140	1,256,601	563,785	796,007	275,305	164,901
ALL OTHER	130,797	171,612	168,150	132,905	133,166	233,831
TOTAL	451,937	1,428,213	731,935	928,912	408,471	398,732
SOUTH AMERICA	1,265,924	1,932,074	2,038,143	2,496,324	1,672,629	694,178
TOTAL	1,717,861	3,360,287	2,770,078	3,425,236	2,081,100	1,092,910
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	0
Belgium and Luxembourg	835,144	643,234	2,166,778	2,094,158	1,265,490	1,326,296
Denmark	3,170,954	3,030,568	3,639,477	3,623,947	4,103,615	3,502,235
France	6,933,333	7,668,705	15,365,594	13,108,220	9,921,617	8,394,520
Germany, West	42,197,301	42,066,462	70,054,393	54,552,144	38,560,266	29,013,213
Greece	0	22,000	34,000	0	0	0
Ireland	0	66,000	66,000	22,000	44,000	88,000
Italy	278,671	3,005,004	5,011,497	1,448,958	700,900	115,693
Netherlands	3,481,199	3,444,735	4,687,051	4,011,319	6,187,372	5,287,406
United Kingdom	8,426,958	9,527,416	8,470,601	8,750,918	10,066,134	11,668,255
Total	65,323,560	69,474,124	109,495,391	87,611,664	70,849,394	59,395,618
OTHER W. EUROPE:						
Austria	312,432	867,608	686,520	765,165	1,208,150	740,942
Cyprus	0	0	0	32,500	0	0
Finland	737,492	583,963	766,878	784,701	1,183,264	857,140
Gibraltar	0	0	3,221	6,283	0	0
Iceland	1,750	2,000	2,000	525	6,865	2,200
Malta and Gozo	23,240	14,800	17,399	19,300	16,850	13,800
Norway	3,556,197	3,157,318	3,418,477	4,354,955	4,097,806	3,430,169
Portugal	0	0	0	0	0	0
Spain	5,996	672,627	1,570,739	181,350	4,869	142,476
Sweden	6,054,156	5,014,792	6,925,849	7,098,219	7,356,790	6,431,567
Switzerland	4,016,324	3,082,381	6,534,346	4,656,583	3,605,782	3,748,452
Turkey	0	0	0	0	0	0
Yugoslavia	0	0	0	0	0	0
ASIA:						
Bahrain	105,169	93,000	160,457	208,436	166,647	230,100
Bangladesh	0	0	0	0	0	6,650
Brunei	2,836	2,775	1,978	881	562	2,960
China	33,000	86,150	88,000	33,000	0	0
Hong Kong	198,017	111,465	124,982	158,146	109,184	184,438
India	2,041,042	2,123,941	1,782,911	1,336,873	649,643	195,775
Indonesia	24,926	0	3,239	3,253	25,510	8,748

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1454300--Almonds,shelled,not blanched:						
CENTRAL AMERICA:						
MEXICO	581,539	610,702	1,174,110	749,666	173,575	269,432
ALL OTHER	227,664	147,059	126,392	106,822	0	26,269
TOTAL	809,203	757,761	1,300,502	856,488	173,575	295,701
SOUTH AMERICA	660,931	1,948,995	276,155	1,024,406	0	175,640
TOTAL	1,470,134	2,706,756	1,576,657	1,880,894	173,575	471,341
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	711,767
Belgium and Luxembourg	1,413,050	5,060,293	4,771,342	3,349,959	368,167	0
Denmark	3,819,701	4,193,224	3,010,310	3,343,854	167,668	648,000
France	11,457,975	19,538,734	17,042,796	17,010,255	1,168,420	3,087,778
Germany, West	43,891,177	70,298,899	56,900,313	66,815,804	1,369,133	11,596,377
Greece	0	0	0	2,452,364	0	531,596
Ireland	87,500	33,733	22,488	0	0	0
Italy	1,389,821	2,507,268	1,318,681	5,962,881	46,370	1,088,300
Netherlands	3,977,199	6,337,717	12,889,978	8,092,657	248,889	1,363,041
United Kingdom	12,305,078	18,214,387	12,242,672	12,637,526	1,031,006	3,305,999
Total	78,341,501	126,184,255	108,198,580	119,665,300	4,399,653	22,332,858
OTHER W. EUROPE:						
Austria	873,573	2,689,884	1,056,065	748,047	25,150	0
Cyprus	506,000	378,338	306,590	34,000	34,000	140,000
Finland	833,706	1,064,124	1,271,299	846,771	169,607	203,471
Gibraltar	0	0	0	0	0	0
Iceland	0	3,750	810	750	0	0
Malta and Gozo	0	7,500	12,500	9,500	0	0
Norway	4,316,825	5,419,238	3,552,065	4,977,282	5,000	290,438
Portugal	0	0	0	34,000	0	0
Spain	942,063	1,331,094	1,861,599	2,658,250	5,000	969,859
Sweden	7,042,662	8,743,655	6,660,652	8,004,510	579,134	311,546
Switzerland	4,714,482	5,717,290	5,913,351	4,414,364	1,179,520	1,685,168
Turkey	0	1,137,187	70,400	244,642	0	211,642
Yugoslavia	0	34,000	0	0	0	0
ASIA:						
Bahrain	198,246	155,250	93,000	89,844	0	34,000
Bangladesh	13,200	11,400	0	34,000	0	0
Brunei	3,124	1,056	0	0	0	0
China	0	26,400	13,000	0	0	0
Hong Kong	178,760	231,783	315,492	497,717	40,898	34,105
India	1,091,833	956,240	333,157	606,101	3,478	86,938
Indonesia	23,885	25,896	34,750	46,291	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner — Time period:	1978	1979	1980	1981	1982	1983
1454300--Almonds, shelled, not blanched						
Iraq	0	0	0	0	0	0
Israel	30,000	72,659	55,000	44,000	32,500	650,833
Japan	25,393,186	15,380,463	15,429,334	15,791,873	23,741,363	23,516,503
Jordan	369,650	431,328	693,117	667,500	385,750	186,000
Korea, South	8,575	504	54,800	20,644	279,536	44,586
Kuwait	119,125	555,500	871,500	978,197	798,025	1,202,025
Lebanon	302,790	291,650	943,743	1,045,325	1,186,800	1,242,159
Malaysia	27,046	44,976	84,414	128,041	178,419	265,979
Nepal	2,900	850	4,988	7,275	17,800	21,250
Oman	29,130	45,000	70,000	82,500	73,000	158,000
Pakistan	0	7,428	0	0	0	0
Philippines	0	0	1,765	9,010	0	5,774
Qatar	11,725	0	100,500	105,277	71,100	64,000
Saudi Arabia	312,815	869,610	2,236,728	2,175,399	3,042,502	3,004,820
Singapore	345,025	439,128	698,901	542,476	696,700	794,659
Sri Lanka (Ceylon)	0	6,450	0	0	0	0
Syria	356,480	785,645	478,493	1,009,500	1,779,100	646,493
Taiwan	329,570	178,320	382,385	1,243,036	2,374,561	2,516,335
Thailand	17,565	5,348	12,465	13,895	13,195	22,800
United Arab Emirates	783,525	982,638	1,316,163	1,048,072	1,789,559	1,211,853
Yemen (Sana)	0	0	0	33,000	0	0
Total	30,844,097	22,514,828	25,595,863	26,685,609	37,411,456	36,182,740
MIDDLE EAST	2,420,409	4,127,030	6,925,701	7,397,206	9,324,983	8,596,283
OCEANIA:						
AUSTRALIA	2,257,079	1,479,126	1,449,571	2,464,307	2,280,774	3,523,946
NEW ZEALAND	265,172	234,608	326,902	324,727	304,342	366,859
ALL OTHER	41,459	33,229	28,512	355,727	51,348	22,452
Total	2,563,710	1,746,963	1,804,985	3,144,761	2,636,464	3,913,257
AFRICA:						
ALL OTHER	547,275	398,171	4,897,565	824,997	1,087,317	1,140,354
Total	547,275	398,171	4,897,565	824,997	1,087,317	1,140,354
1455100--Walnuts, shelled, not blanched						
CANADA	680,931	693,703	629,637	858,610	929,230	1,262,392
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	86,858	43,038	45,466	149,609	9,890	2,500
ALL OTHER	109,909	106,027	127,455	78,641	116,965	281,536
TOTAL	196,767	149,065	172,921	228,250	126,855	284,036
SOUTH AMERICA	619,788	736,828	700,491	866,894	625,219	142,400
TOTAL	816,555	885,893	873,412	1,095,144	752,074	426,436

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1454300--Almonds,shelled,not balnched						
Iraq	0	0	238,000	0	0	0
Israel	154,623	1,481,621	1,318,898	2,112,602	241,940	670,330
Japan	26,387,719	29,277,047	37,249,772	20,519,554	2,396,735	6,518,263
Jordan	867,612	334,900	102,000	879,590	32,271	0
Korea, South	295,817	677,862	1,220,690	1,458,798	127,166	593,954
Kuwait	705,749	736,400	716,046	857,431	0	56,000
Lebanon	912,750	1,110,581	624,500	292,000	0	102,000
Malaysia	284,785	240,121	218,700	146,759	26,300	30,309
Nepal	6,925	332,450	205,425	207,725	0	85,850
Oman	195,250	177,000	102,262	34,000	0	0
Pakistan	0	0	0	0	0	0
Philippines	0	66,088	14,418	4,978	0	0
Qatar	48,000	48,500	0	70,000	0	0
Saudi Arabia	2,710,008	3,451,657	801,363	1,289,336	181,472	443,000
Singapore	793,353	919,964	1,095,400	1,439,414	157,635	323,694
Sri Lanka (Ceylon)	2,200	0	0	2,200	0	2,200
Syria	34,000	337,500	34,000	183,314	0	106,250
Taiwan	1,234,541	2,347,963	2,229,051	2,128,147	247,640	587,041
Thailand	39,123	8,325	4,329	0	0	0
United Arab Emirates	1,467,810	2,214,590	1,716,000	1,933,553	337,000	815,100
Yemen (Sana)	0	0	0	0	0	0
Total	37,649,313	45,170,594	48,680,253	34,833,354	3,792,535	10,489,034
MIDDLE EAST	7,294,048	10,047,999	5,746,069	7,741,670	792,683	2,226,680
OCEANIA:						
AUSTRALIA	5,710,555	4,405,253	4,441,826	1,262,400	248,683	330,653
NEW ZEALAND	386,673	628,186	231,067	450,445	43,902	79,621
ALL OTHER	24,465	54,560	16,750	34,466	0	3,025
Total	6,121,693	5,087,999	4,689,643	1,747,311	292,585	413,299
AFRICA:						
ALL OTHER	5,897,577	11,983,833	1,090,089	968,099	173,941	139,155
Total	5,897,577	11,983,833	1,090,089	968,099	173,941	139,155
1455100--Walnuts,shelled,not blanched						
CANADA	1,088,774	1,438,647	1,867,451	2,024,941	108,551	230,548
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	6,000	19,000	111,335	41,502	0	0
ALL OTHER	158,639	67,895	162,471	102,454	0	17,088
TOTAL	164,639	86,895	273,806	143,956	0	17,088
SOUTH AMERICA	385,479	623,004	283,426	185,770	0	19,077
TOTAL	550,118	709,899	557,232	329,726	0	36,165

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1978	1979	1980	1981	1982	1983
1455100--Walnuts,shelled,not blanched						
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	0
Belgium and Luxembourg	311,609	5,290	8,528	10,656	10,052	5,820
Denmark	16,024	8,223	98,647	27,747	37,762	26,957
France	265,008	128,399	52,250	217,200	354,079	85,060
Germany, West	754,557	512,685	2,491,474	1,217,440	567,755	676,311
Greece	0	0	318,400	38,900	0	0
Ireland	0	0	0	41,471	0	0
Italy	180,000	13,146	722,800	17,500	159,503	194,971
Netherlands	395,068	197,091	539,582	511,825	362,749	1,129,385
United Kingdom	640,860	575,228	579,024	444,750	411,793	574,245
Total	2,563,126	1,440,062	4,810,705	2,527,489	1,903,693	2,692,749
OTHER W. EUROPE:						
Austria	437,820	219,968	612,930	471,000	118,500	0
Cyprus	0	21,500	3,750	846	0	19,750
Finland	12,354	34,503	2,840	0	49,100	0
Iceland	600	1,024	0	0	1,301	1,844
Norway	158,215	33,270	32,744	64,815	69,013	67,847
Portugal	600	0	0	81,518	24,142	6,964
Spain	352,310	504,558	862,636	814,174	1,054,715	286,624
Sweden	86,822	97,745	48,624	126,489	118,780	84,009
Switzerland	319,260	370,913	368,529	297,918	145,674	406,096
ASIA:						
Bahrain	10,200	5,520	25,319	14,277	11,517	28,871
Brunei	1,218	1,234	0	0	0	0
Hong Kong	0	27,782	98,640	1,969	65,460	60,272
India	0	0	9,300	0	0	11,000
Indonesia	3,150	0	4,800	1,878	3,900	0
Israel	597,259	470,781	559,725	755,503	601,173	917,491
Japan	956,228	664,534	583,659	981,802	924,541	1,179,135
Jordan	0	2,000	0	0	0	1,788
Korea, South	126,846	0	0	2,500	200,334	0
Lebanon	12,500	57,500	165,000	21,000	21,000	0
Malaysia	24,370	12,976	3,380	4,337	2,011	38,380
Oman	840	0	0	0	0	0
Philippines	0	700	2,400	12,423	7,395	16,975
Saudi Arabia	13,998	15,740	55,792	90,163	53,372	21,287
Singapore	27,985	16,967	31,610	14,741	24,967	21,461
Taiwan	162,253	222,290	251,111	310,055	346,914	336,077
Thailand	2,760	0	5,304	3,098	1,058	4,497

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner Time period:	1978	1979	1980	1981	1982	1983
1496800--Blueberries, frozen						
LATIN AMERICA:						
CENTRAL AMERICA:						
ALL OTHER	0	0	0	0	4,416	2,550
TOTAL	0	0	0	0	4,416	2,550
SOUTH AMERICA	0	0	0	3,984	0	0
TOTAL	0	0	0	3,984	4,416	2,550
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	0	0	546,971	1,128,613	694,246	162,000
Denmark	0	0	40,500	0	0	0
France	0	0	595,398	151,515	0	0
Germany, West	0	0	4,023,329	6,231,735	3,381,180	70,322
Italy	0	0	0	0	0	0
Netherlands	0	0	2,070,727	3,859,357	2,040,418	849,180
United Kingdom	26,855	0	180,567	167,762	53,286	19,500
Total	26,855	0	7,457,492	11,538,982	6,169,130	1,101,002
OTHER W. EUROPE:						
Austria	0	0	0	81,000	342,058	0
Finland	0	0	310,081	241,800	238,792	128,831
Iceland	96,229	0	0	31,457	0	14,741
Norway	1,950	0	0	0	0	0
Portugal	640	0	0	0	0	0
Sweden	160,000	232,000	948,810	356,585	1,684,668	227,186
Switzerland	27,797	0	62,974	169,010	818,766	42,000
ASIA:						
Hong Kong	0	0	0	0	0	600
Israel	0	0	0	0	2,740	0
Japan	5,750	160,506	275,469	3,931,548	4,383,219	1,259,210
Kuwait	0	21,770	0	1,528	0	0
Saudi Arabia	0	3,840	2,737	64,096	4,200	0
Singapore	1,200	480	0	0	2,160	8,784
Taiwan	0	0	0	0	0	0
Thailand	5,494	0	1,500	0	0	4,301
United Arab Emirates	2,250	7,359	0	9,753	0	0
Total	14,694	193,955	279,706	4,006,925	4,392,319	1,272,895
MIDDLE EAST	2,250	32,969	2,737	75,377	6,940	0
OCEANIA:						
AUSTRALIA	2,817	0	200,332	8,671	0	4,400
NEW ZEALAND	0	0	18,900	18,900	0	0
Total	2,817	0	219,232	27,571	0	4,400

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1978	1979	1980	1981	1982	1983
1455100--Walnuts, shelled, not blanched						
United Arab Emirates	1,114	0	3,294	2,400	4,711	2,978
Total	1,940,721	1,498,024	1,799,334	2,216,146	2,268,353	2,640,212
MIDDLE EAST	635,911	551,541	809,130	883,343	691,773	972,415
OCEANIA:						
AUSTRALIA	821,706	737,599	757,595	959,608	1,373,448	1,597,043
NEW ZEALAND	5,000	14,375	2,500	7,375	3,978	1,058
ALL OTHER	4,451	3,720	2,700	4,054	5,038	6,501
Total	831,157	755,694	762,795	971,037	1,382,464	1,604,602
AFRICA:						
ALL OTHER	88,461	12,884	29,598	20,028	5,792	73,409
Total	88,461	12,884	29,598	20,028	5,792	73,409
1456100--Almonds, prepared, preserved						
CANADA	2,671,678	1,465,718	2,322,355	2,304,070	2,820,685	2,100,280
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	13,255	25,660	98,970	53,391	38,240	21,700
ALL OTHER	35,004	30,914	44,335	41,596	46,800	88,643
TOTAL	48,259	56,574	143,305	94,987	85,040	110,343
SOUTH AMERICA	103,472	71,827	172,030	178,854	160,603	37,532
TOTAL	151,731	128,401	315,335	273,841	245,643	147,875
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	0
Belgium and Luxembourg	276,352	513,810	631,212	395,957	264,919	467,070
Denmark	128,916	124,944	121,432	48,992	39,890	51,175
France	4,055,639	3,620,732	5,802,777	3,836,055	5,633,529	6,057,683
Germany, West	15,034,158	11,673,944	15,244,862	10,868,318	13,770,575	15,428,317
Greece	1,351	900	6,053	0	3,050	850
Ireland	0	22,000	0	0	0	0
Italy	8,348	45,750	286,000	38,522	0	2,485
Netherlands	1,695,233	2,402,235	2,488,668	1,850,923	2,041,477	1,867,189
United Kingdom	5,927,376	5,171,354	5,614,852	5,387,244	5,674,256	5,863,338
Total	27,127,373	23,575,669	30,195,856	22,426,011	27,427,696	29,738,107
OTHER W. EUROPE:						
Austria	83,625	61,342	99,442	100,297	23,594	286,676
Cyprus	46,665	0	0	0	0	0
Finland	178,405	172,351	216,279	388,512	203,602	342,078
Gibraltar	0	0	0	648	0	0
Iceland	2,750	3,500	2,000	2,125	2,500	3,000
Malta and Gozo	6,590	2,520	1,667	9,276	3,208	2,850
Norway	270,794	297,278	427,127	628,414	284,389	299,055
Portugal	0	0	0	0	0	0

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner | Time period	1984	1985	1986	1987	January-February 1987	January-February 1988
1455100--Walnuts,shelled,not blanched:						
United Arab Emirates	0	0	0	0	0	0
Total	3,266,888	2,466,888	4,349,709	4,818,232	1,042,602	1,025,899
MIDDLE EAST	328,704	518,812	853,272	1,092,811	153,889	405,014
OCEANIA:						
AUSTRALIA	2,289,016	1,866,575	2,214,535	1,966,456	455,011	312,825
NEW ZEALAND	13,384	57,545	43,044	2,751	0	2,500
ALL OTHER	0	0	500	8,744	0	0
Total	2,302,400	1,924,120	2,258,079	1,977,951	455,011	315,325
AFRICA:						
ALL OTHER	19,514	186,700	22,658	688	0	20,000
Total	19,514	186,700	22,658	688	0	20,000
1456100--Almonds, prepared, preserved:						
CANADA	2,012,358	1,676,186	2,503,620	2,748,222	452,156	193,558
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	94,430	83,575	123,343	29,401	15,401	7,854
ALL OTHER	65,641	20,118	64,668	61,692	2,268	8,784
TOTAL	160,071	103,693	188,011	91,093	17,669	16,638
SOUTH AMERICA	9,149	36,192	33,516	198,111	4,154	41,902
TOTAL	169,220	139,885	221,527	289,204	21,823	58,540
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	109,900
Belgium and Luxembourg	357,340	2,031,468	1,619,490	1,212,191	18,750	0
Denmark	55,612	268,243	384,927	279,760	675	3,850
France	6,127,125	8,335,463	9,053,289	7,359,277	953,064	1,641,083
Germany, West	13,305,420	19,094,969	18,729,972	15,337,460	518,887	3,427,808
Greece	0	0	0	554,068	0	42,000
Ireland	20,250	91,664	118,760	32,552	21,552	0
Italy	31,796	544,981	119,040	1,008,499	0	185,700
Netherlands	2,317,515	4,100,474	2,241,076	2,921,283	236,694	441,818
United Kingdom	5,546,197	5,270,210	9,748,574	5,205,526	1,197,424	1,360,120
Total	27,761,255	39,737,472	42,015,128	33,910,616	2,947,046	7,212,279
OTHER W. EUROPE:						
Austria	291,244	188,882	299,823	392,028	22,500	0
Cyprus	0	0	0	0	0	0
Finland	403,737	385,036	391,916	437,923	76,166	77,284
Gibraltar	0	0	0	0	0	0
Iceland	0	0	2,750	0	0	0
Malta and Gozo	0	2,500	0	0	0	0
Norway	357,395	655,196	1,060,784	356,825	625	84,420
Portugal	0	0	0	42,000	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1978	1979	1980	1981	1982	1983
1456100--Almonds, prepared, preserved:						
Spain	990	8,825	43,013	68,956	3,131	436,346
Sweden	296,199	279,256	441,116	450,150	509,167	480,475
Switzerland	1,469,637	1,891,043	2,665,678	2,106,900	2,348,149	2,116,918
ASIA:						
Bahrain	4,141	3,312	9,272	4,630	14,878	72,600
Bangladesh	0	0	0	4,500	0	0
Brunei	0	0	946	0	0	0
China	0	0	2,250	0	1,287	0
Hong Kong	184,765	66,005	112,987	146,129	463,717	385,788
India	25,032	3,018	4,740	7,062	33,784	76,699
Indonesia	932	0	5,314	8,595	35,549	60,035
Israel	2,337	0	0	0	5,000	6,600
Japan	246,740	1,331,586	5,408,969	5,226,155	5,583,211	6,719,686
Jordan	0	564	0	92,000	0	0
Korea, South	2,814	32,200	28,256	30,217	22,182	18,264
Kuwait	4,464	21,600	177,078	167,700	44,258	299,325
Lebanon	0	0	0	0	44,725	61,789
Malaysia	10,296	900	10,439	1,125	20,531	23,500
Nepal	0	0	1,118	2,547	2,291	0
Oman	10,000	33,811	16,426	79,828	0	133,340
Pakistan	7,516	0	0	0	0	0
Philippines	16,493	1,611	5,000	860	10,921	15,000
Qatar	5,695	12,500	15,000	0	0	0
Saudi Arabia	52,138	111,344	328,562	360,335	1,364,867	779,426
Singapore	260,122	163,158	172,531	340,922	156,618	216,556
Sri Lanka (Ceylon)	0	2,005	0	0	0	0
Taiwan	22,795	36,790	151,192	280,320	105,275	194,807
Thailand	5,174	18,765	6,034	2,438	8,222	16,341
United Arab Emirates	1,642	55,791	3,096	79,032	105,159	324,659
Total	863,096	1,894,960	6,459,210	6,834,395	8,022,475	9,404,415
MIDDLE EAST	80,417	238,922	549,434	783,525	1,578,887	1,677,739
OCEANIA:						
AUSTRALIA	1,089,678	699,213	538,757	665,127	710,745	801,736
NEW ZEALAND	140,065	72,619	109,001	116,332	147,347	417,560
ALL OTHER	6,789	13,058	12,822	22,907	46,051	8,891
Total	1,236,532	784,890	660,580	804,366	904,143	1,228,187
AFRICA:						
ALL OTHER	193,716	110,996	247,570	350,862	427,053	602,127
Total	193,716	110,996	247,570	350,862	427,053	602,127
1496800--Blueberries, frozen						
CANADA	815,731	1,444,812	3,136,581	3,820,189	6,459,572	3,047,291

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1456100--Almonds, prepared, preserved						
Spain	7,635	589,366	123,045	117,783	0	85,000
Sweden	460,025	642,976	1,882,803	407,070	25,400	62,601
Switzerland	1,916,773	2,961,182	3,292,892	2,469,511	175,945	645,264
ASIA:						
Bahrain	4,961	1,250	145,235	146,550	0	37,500
Bangladesh	0	0	0	0	0	0
Brunei	0	0	5,028	1,125	0	1,468
China	0	0	0	0	0	0
Hong Kong	451,391	477,161	310,255	263,108	63,140	21,615
India	121,036	24,748	35,974	75,438	6,859	3,596
Indonesia	9,766	9,864	27,147	12,305	0	18,443
Israel	0	62,249	128,905	222,555	0	18,200
Japan	6,022,558	8,082,544	16,925,603	12,495,438	2,015,444	1,726,479
Jordan	105,000	0	0	210,000	0	0
Korea, South	117,858	100,246	346,011	171,179	50,000	15,443
Kuwait	73,128	78,039	245,900	546,768	963	0
Lebanon	68,000	0	13,750	31,400	0	0
Malaysia	20,175	9,565	42,783	81,382	0	1,500
Nepal	0	3,126	0	0	0	0
Oman	35,270	0	0	35,000	0	0
Pakistan	0	0	0	0	0	0
Philippines	0	1,579	0	0	0	0
Qatar	0	0	0	0	0	0
Saudi Arabia	1,014,469	708,242	917,400	967,169	230,475	213,302
Singapore	246,312	126,060	154,165	975,661	173,011	372,433
Sri Lanka (Ceylon)	0	0	0	0	0	0
Taiwan	495,869	952,247	891,673	958,132	156,500	192,937
Thailand	32,666	17,100	12,875	28,116	0	0
United Arab Emirates	108,310	95,567	286,830	418,523	36,958	180,497
Total	8,926,769	10,749,587	20,489,534	17,639,849	2,733,350	2,803,413
MIDDLE EAST	1,409,138	945,347	1,738,020	2,577,965	268,396	449,499
OCEANIA:						
AUSTRALIA	631,205	905,210	709,363	508,422	0	35,000
NEW ZEALAND	157,917	208,450	185,786	92,986	13,083	23,447
ALL OTHER	11,953	8,965	6,876	5,421	0	0
Total	801,075	1,122,625	902,025	606,829	13,083	58,447
AFRICA:						
ALL OTHER	408,341	523,149	80,633	60,424	0	24,625
Total	408,341	523,149	80,633	60,424	0	24,625
1496800--Blueberries, frozen						
CANADA	4,746,277	2,965,464	3,281,763	6,889,068	358,442	896,281

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner — Time period	1978	1979	1980	1981	1982	1983
1496800--Blueberries, frozen						
LATIN AMERICA:						
CENTRAL AMERICA:						
ALL OTHER	0	0	0	0	4,416	2,550
TOTAL	0	0	0	0	4,416	2,550
SOUTH AMERICA	0	0	0	3,984	0	0
TOTAL	0	0	0	3,984	4,416	2,550
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	0	0	546,971	1,128,613	694,246	162,000
Denmark	0	0	40,500	0	0	0
France	0	0	595,398	151,515	0	0
Germany, West	0	0	4,023,329	6,231,735	3,381,180	70,322
Italy	0	0	0	0	0	0
Netherlands	0	0	2,070,727	3,859,357	2,040,418	849,180
United Kingdom	26,855	0	180,567	167,762	53,286	19,500
Total	26,855	0	7,457,492	11,538,982	6,169,130	1,101,002
OTHER W. EUROPE:						
Austria	0	0	0	81,000	342,058	0
Finland	0	0	310,081	241,800	238,792	128,831
Iceland	96,229	0	0	31,457	0	14,741
Norway	1,950	0	0	0	0	0
Portugal	640	0	0	0	0	0
Sweden	160,000	232,000	948,810	356,585	1,684,668	227,186
Switzerland	27,797	0	62,974	169,010	818,766	42,000
ASIA:						
Hong Kong	0	0	0	0	0	600
Israel	0	0	0	0	2,740	0
Japan	5,750	160,506	275,469	3,931,548	4,383,219	1,259,210
Kuwait	0	21,770	0	1,528	0	0
Saudi Arabia	0	3,840	2,737	64,096	4,200	0
Singapore	1,200	480	0	0	2,160	8,784
Taiwan	0	0	0	0	0	0
Thailand	5,494	0	1,500	0	0	4,301
United Arab Emirates	2,250	7,359	0	9,753	0	0
Total	14,694	193,955	279,706	4,006,925	4,392,319	1,272,895
MIDDLE EAST	2,250	32,969	2,737	75,377	6,940	0
OCEANIA:						
AUSTRALIA	2,817	0	200,332	8,671	0	4,400
NEW ZEALAND	0	0	18,900	18,900	0	0
Total	2,817	0	219,232	27,571	0	4,400

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity / Partner — Time period	1984	1985	1986	1987	January-February 1987	January-February 1988
1496800--Blueberries, frozen						
LATIN AMERICA:						
CENTRAL AMERICA:						
ALL OTHER	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0
SOUTH AMERICA	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	0	0	0	0	0	0
Denmark	0	0	0	109,091	0	19,800
France	0	0	345,111	42,000	0	0
Germany, West	1,688,440	767,010	1,362,607	5,920,097	200,499	446,962
Italy	0	0	0	169,213	0	0
Netherlands	1,047,488	456,772	399,850	2,975,320	0	0
United Kingdom	0	0	242,740	84,000	0	0
Total	2,735,928	1,223,782	2,350,308	9,299,721	200,499	466,762
OTHER W. EUROPE:						
Austria	0	0	0	0	0	0
Finland	0	0	0	755,847	0	0
Iceland	0	0	0	0	0	0
Norway	0	0	0	0	0	0
Portugal	0	0	0	0	0	0
Sweden	120,000	0	45,000	298,768	0	0
Switzerland	367,820	192,000	81,364	47,854	0	0
ASIA:						
Hong Kong	465	2,250	2,880	0	0	0
Israel	0	0	0	0	0	0
Japan	949,412	676,215	2,353,733	2,459,810	321,409	505,004
Kuwait	0	0	0	0	0	0
Saudi Arabia	0	5,080	12,413	0	0	0
Singapore	3,800	840	0	2,580	0	0
Taiwan	3,690	0	0	0	0	0
Thailand	0	4,944	0	0	0	0
United Arab Emirates	0	0	0	0	0	0
Total	957,367	689,329	2,369,026	2,462,390	321,409	505,004
MIDDLE EAST	0	5,080	12,413	0	0	0
OCEANIA:						
AUSTRALIA	27,210	0	39,204	323,087	0	0
NEW ZEALAND	27,900	0	0	0	0	0
Total	55,110	0	39,204	323,087	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1978	1979	1980	1981	1982	1983
1497000--Strawberries, frozen						
CANADA	3,363,350	1,558,545	1,106,602	1,778,159	1,906,876	2,848,501
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	0	129,480	140,882	936	67,407	57,740
ALL OTHER	18,487	3,074	66,678	16,130	4,713	8,093
TOTAL	18,487	132,554	207,560	17,066	72,120	65,833
SOUTH AMERICA	157,614	98,554	1,199	34,074	0	0
TOTAL	176,101	231,108	208,759	51,140	72,120	65,833
WESTERN EUROPE:						
EC-10:						
France	5,258	134,046	39,362	5,371	5,115	0
Germany, West	44,254	47,910	69,426	80,000	19,155	16,305
Italy	0	0	0	0	0	1,073
Netherlands	393,400	0	0	0	5,115	39,200
United Kingdom	734,411	250,345	53,629	44,650	68,852	20,792
Total	1,177,323	432,301	162,417	130,021	98,237	77,370
OTHER W. EUROPE:						
Cyprus	0	0	0	0	0	0
Finland	73,470	0	0	0	0	0
Iceland	0	0	2,199	18,080	3,691	890
Switzerland	0	38,746	2,266	0	2,677	0
ASIA:						
Bahrain	4,200	1,275	0	3,248	11,415	27,056
Hong Kong	64,734	21,000	29,330	18,226	19,805	36,855
Indonesia	4,508	0	0	4,743	784	2,365
Israel	0	0	0	0	2,010	0
Japan	3,835,279	2,245,973	2,445,332	3,436,197	3,714,346	1,961,458
Korea, South	0	0	0	0	0	3,525
Kuwait	0	0	0	0	0	0
Malaysia	3,450	13,186	19,766	13,564	5,761	4,400
Oman	0	0	0	0	0	0
Pakistan	0	0	0	2,540	0	0
Philippines	0	0	0	0	0	0
Qatar	840	1,500	2,653	0	0	0
Saudi Arabia	32,863	28,095	52,162	69,534	86,564	92,175
Singapore	45,775	62,493	51,151	30,967	50,298	44,975
Taiwan	0	0	0	40,005	0	15,707
Thailand	1,742	0	0	0	0	0
United Arab Emirates	1,620	10,200	1,200	4,511	6,853	0
Total	3,995,011	2,383,722	2,601,594	3,623,535	3,897,836	2,188,516
MIDDLE EAST	39,523	41,070	56,015	77,293	106,842	119,231

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1984	1985	1986	1987	January-February 1987	January-February 1988
1497000--Strawberries, frozen						
CANADA	2,365,246	2,332,115	2,925,712	1,755,477	116,713	363,309
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	0	0	37,958	60,000	0	0
ALL OTHER	74,326	50,717	27,177	10,159	0	0
TOTAL	74,326	50,717	65,135	70,159	0	0
SOUTH AMERICA	16,895	0	0	39,683	0	0
TOTAL	91,221	50,717	65,135	109,842	0	0
WESTERN EUROPE:						
EC-10:						
France	0	0	0	0	0	6,552
Germany, West	107,787	0	0	58,102	34,068	0
Italy	0	0	19,899	0	0	0
Netherlands	0	0	0	0	0	0
United Kingdom	13,265	9,931	0	2,700	0	5,031
Total	121,052	9,931	19,899	60,802	34,068	11,583
OTHER W. EUROPE:						
Cyprus	1,872	0	0	0	0	0
Finland	0	0	0	13,663	0	36,000
Iceland	0	0	0	0	0	0
Switzerland	0	0	0	0	0	0
ASIA:						
Bahrain	9,400	3,937	4,500	5,250	0	0
Hong Kong	21,848	20,646	6,300	38,181	3,900	0
Indonesia	6,383	0	900	0	0	0
Israel	0	0	0	0	0	0
Japan	2,225,914	3,599,169	4,736,840	7,524,785	538,282	1,623,986
Korea, South	0	0	0	0	0	0
Kuwait	42,702	0	0	0	0	0
Malaysia	0	2,950	0	0	0	0
Oman	0	0	1,230	0	0	0
Pakistan	0	0	0	0	0	0
Philippines	0	0	2,250	0	0	0
Qatar	0	0	0	0	0	0
Saudi Arabia	38,526	41,862	9,479	9,831	0	0
Singapore	37,583	3,140	41,503	15,209	3,478	2,478
Taiwan	41,040	0	2,122	59,340	0	0
Thailand	2,790	5,790	0	0	0	0
United Arab Emirates	0	0	0	0	0	0
Total	2,429,186	3,677,494	4,805,124	7,652,596	545,660	1,626,464
MIDDLE EAST	90,628	45,799	15,209	15,081	0	0

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1978	1979	1980	1981	1982	1983
1497000--Strawberries, frozen						
OCEANIA:						
AUSTRALIA	726,242	475,727	251,593	902,790	1,120,374	693,933
NEW ZEALAND	0	0	0	0	0	0
ALL OTHER	22,208	39,173	28,559	56,822	23,496	11,137
Total	748,450	514,900	280,152	959,612	1,143,870	705,070
AFRICA:						
ALL OTHER	1,560	0	0	0	1,525	0
Total	1,560	0	0	0	1,525	0
1506500--Grapes (raisins), dried						
CANADA	12,562,297	14,855,417	14,956,721	20,738,609	15,377,946	12,179,849
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	603,686	434,776	30,170	81,779	10,352	0
ALL OTHER	1,493,737	1,357,143	2,189,297	1,704,716	1,637,329	2,002,930
TOTAL	2,097,423	1,791,919	2,219,467	1,786,495	1,647,681	2,002,930
SOUTH AMERICA	2,856,525	4,077,769	5,836,181	4,886,373	5,232,879	2,991,397
TOTAL	4,953,948	5,869,688	8,055,648	6,672,868	6,880,560	4,994,327
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	0
Belgium and Luxembourg	2,580,760	1,347,189	3,011,348	2,259,310	2,103,242	2,197,303
Denmark	3,959,344	4,118,543	4,871,841	4,354,650	3,017,781	4,230,952
France	711,380	3,824,976	3,713,000	2,188,316	1,301,158	1,228,534
Germany, West	5,800,266	8,071,507	16,688,715	9,175,779	6,660,977	5,913,971
Greece	0	0	0	0	0	0
Ireland	150,000	669,000	525,000	0	0	157,814
Italy	336,496	1,231,661	0	38,650	0	0
Netherlands	3,494,172	2,780,438	4,977,543	3,055,745	3,145,687	3,856,386
United Kingdom	1,770,116	5,834,636	16,200,228	6,915,326	4,169,198	6,212,202
Total	18,802,534	27,877,950	49,987,675	27,987,776	20,398,043	23,797,162
OTHER W. EUROPE:						
Austria	189,945	167,292	306,165	84,138	74,152	108,746
Finland	3,883,721	3,996,742	4,627,275	5,584,928	2,440,902	4,088,954
Iceland	289,482	87,095	344,117	243,768	250,896	338,836
Malta and Gozo	3,280	0	9,500	1,100	900	0
Norway	3,470,731	3,194,710	3,947,211	4,541,516	4,065,670	3,218,947
Portugal	0	0	206,062	0	0	0
Spain	82,486	67,338	279,022	223,438	102,030	47,177
Sweden	6,650,680	5,236,637	7,219,260	8,122,877	7,627,283	8,383,328
Switzerland	1,734,816	1,209,349	1,407,144	1,848,690	1,466,661	1,582,597

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1984	1985	1986	1987	January-February	
					1987	1988
1497000--Strawberries, frozen						
OCEANIA:						
AUSTRALIA	1,227,276	554,833	633,146	1,135,967	60,000	221,070
NEW ZEALAND	0	0	3,478	86,356	0	49,910
ALL OTHER	2,987	0	6,426	6,232	0	0
Total	1,230,263	554,833	643,050	1,228,555	60,000	270,980
AFRICA:						
ALL OTHER	0	6,557	2,745	0	0	0
Total	0	6,557	2,745	0	0	0
1506500--Grapes (raisins), dried						
CANADA	8,087,436	7,514,988	5,980,441	8,257,205	779,754	1,023,114
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	56,018	3,900	12,318	119,368	8,333	2,500
ALL OTHER	1,699,099	2,085,678	2,282,751	1,932,838	424,939	387,254
TOTAL	1,755,117	2,089,578	2,295,069	2,052,206	433,272	389,754
SOUTH AMERICA	3,264,253	3,084,936	4,285,734	1,607,592	116,637	915,550
TOTAL	5,019,370	5,174,514	6,580,803	3,659,798	549,909	1,305,304
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	536,720
Belgium and Luxembourg	2,775,307	2,652,657	3,295,660	4,838,082	941,979	0
Denmark	4,710,591	5,998,767	11,310,905	13,206,934	1,181,140	1,114,800
France	645,020	894,278	910,307	697,273	124,720	181,500
Germany, West	8,701,771	9,244,787	14,675,401	18,833,025	2,176,591	2,947,570
Greece	0	0	0	0	0	44,000
Ireland	131,305	38,359	126,793	444,675	0	0
Italy	0	78,750	0	81,000	0	0
Netherlands	6,241,711	6,872,010	8,090,897	8,648,479	2,225,946	1,769,360
United Kingdom	10,637,352	15,608,715	28,784,488	38,803,561	3,892,077	6,523,577
Total	33,843,057	41,388,323	67,194,451	85,553,029	10,542,453	13,417,527
OTHER W. EUROPE:						
Austria	167,685	13,525	479,228	91,875	0	7,938
Finland	3,592,917	3,132,315	5,049,719	5,336,675	276,996	262,321
Iceland	144,028	241,399	284,089	363,634	35,578	49,771
Malta and Gozo	6,650	0	11,100	0	0	0
Norway	3,857,072	4,169,559	4,593,857	4,531,011	608,800	424,614
Portugal	0	0	45,000	21,913	0	37,500
Spain	169,452	105,360	133,330	445,057	48,750	25,530
Sweden	7,470,425	9,336,928	11,308,367	9,695,801	647,673	1,265,430
Switzerland	1,061,671	1,204,282	857,279	1,181,568	271,850	237,794

Continued--

Appendix table 10- U S EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1978	1979	1980	1981	1982	1983
1506500--Grapes (raisins), dried						
ASIA:						
Bahrain	0	1,463	21,286	54,424	115,062	106,283
Bangladesh	0	0	0	105,900	0	0
Brunei	7,601	5,775	14,974	19,163	5,700	8,580
China	0	0	0	0	0	0
Hong Kong	532,650	1,248,860	1,616,301	1,538,980	1,084,213	2,070,570
India	419,722	67,500	66,000	4,500	0	0
Indonesia	83,765	132,624	252,244	383,524	603,026	927,345
Iran	0	2,479	0	0	0	0
Iraq	750	0	0	0	0	0
Israel	45,541	16,380	256,669	446,194	57,452	427,063
Japan	35,225,903	19,402,822	33,413,077	35,642,341	34,120,129	39,327,897
Jordan	0	0	36,357	73,891	0	0
Korea, South	308,895	605,647	1,324,793	4,712,153	4,640,919	3,779,442
Kuwait	0	11,250	4,500	197,300	0	32,120
Lebanon	7,916	7,501	819,101	699,193	16,382	24,290
Malaysia	586,336	771,370	1,141,752	1,307,770	1,897,567	2,514,278
Oman	0	1,126	0	10,125	2,475	563
Pakistan	0	652	0	0	0	0
Philippines	210,551	101,513	101,050	586,267	1,038,263	1,485,589
Qatar	4,038	478	0	37,500	29,828	0
Saudi Arabia	27,328	157,369	359,331	974,732	1,275,037	1,933,553
Singapore	881,668	1,153,012	1,861,571	1,310,518	1,499,497	1,276,930
Sri Lanka (Ceylon)	0	4,609	0	0	0	0
Syria	0	0	0	225,000	0	0
Taiwan	1,822,445	1,441,408	4,598,871	4,525,415	5,999,927	6,882,696
Thailand	97,168	213,028	335,897	143,840	327,610	546,140
United Arab Emirates	2,250	0	165,620	97,203	77,582	76,366
Total	40,264,527	25,346,866	46,392,394	53,095,933	52,790,669	61,419,705
MIDDLE EAST	87,823	198,046	1,662,864	2,815,562	1,573,818	2,600,238
OCEANIA:						
AUSTRALIA	1,250	1,786	0	6,450	0	0
NEW ZEALAND	1,630,322	1,135,215	1,183,520	2,435,074	2,032,092	2,214,830
ALL OTHER	32,836	37,821	46,084	52,070	56,610	49,227
Total	1,664,408	1,174,822	1,229,604	2,493,594	2,088,702	2,264,057
AFRICA:						
ALL OTHER	126,349	12,244	85,517	193,412	14,197	5,850
Total	126,349	12,244	85,517	193,412	14,197	5,850
1508000--Prunes, dried						
CANADA	7,702,757	6,243,217	7,462,946	6,878,698	7,485,492	6,679,323

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1506500--Grapes (raisins), dried						
ASIA:						
Bahrain	93,321	62,153	64,464	124,838	0	0
Bangladesh	22,410	0	0	0	0	0
Brunei	13,623	24,657	29,723	22,547	4,265	9,510
China	36,272	0	0	0	0	0
Hong Kong	1,746,804	1,567,981	1,744,152	1,102,418	202,542	99,345
India	0	196,865	0	0	0	0
Indonesia	595,093	331,014	269,401	192,582	81,500	44,000
Iran	0	0	0	0	0	0
Iraq	0	0	0	0	0	0
Israel	169,956	439,100	1,769,030	1,628,853	219,000	694,058
Japan	36,786,287	44,672,467	45,889,270	40,944,816	5,290,010	8,500,126
Jordan	0	0	0	0	0	38,535
Korea, South	3,440,989	4,058,645	3,910,043	5,933,060	1,215,174	2,138,029
Kuwait	35,280	144,175	260,955	92,078	1,545	13,228
Lebanon	21,820	0	0	0	0	0
Malaysia	2,016,883	1,458,743	1,766,455	2,397,411	302,737	203,228
Oman	0	0	0	0	0	0
Pakistan	0	0	0	0	0	0
Philippines	292,865	1,217,782	1,114,512	947,404	153,000	64,381
Qatar	0	0	0	0	0	0
Saudi Arabia	1,087,950	1,958,392	1,262,963	1,546,129	270,579	319,682
Singapore	1,401,819	2,716,955	2,632,549	1,953,116	212,632	636,763
Sri Lanka (Ceylon)	0	0	0	0	0	0
Syria	0	0	0	0	0	0
Taiwan	5,136,862	5,141,806	4,537,444	7,206,432	1,221,101	1,337,309
Thailand	250,849	65,080	270,410	95,832	0	31,684
United Arab Emirates	163,046	346,897	193,405	493,767	147,698	120,513
Total	53,312,129	64,402,712	65,714,776	64,681,283	9,321,783	14,250,391
MIDDLE EAST	1,571,373	2,950,717	3,550,817	3,885,665	638,822	1,186,016
OCEANIA:						
AUSTRALIA	2,013,274	2,313,556	841,461	683,478	0	37,500
NEW ZEALAND	2,061,686	2,285,978	2,246,471	2,086,477	435,620	347,726
ALL OTHER	53,447	26,713	68,303	49,840	7,116	9,848
Total	4,128,407	4,626,247	3,156,235	2,819,795	442,736	395,074
AFRICA:						
ALL OTHER	3,479	5,003,090	14,250	4,436	0	0
Total	3,479	5,003,090	14,250	4,436	0	0
1508000--Prunes, dried						
CANADA	5,988,937	5,086,829	6,856,958	7,100,518	972,425	1,005,907

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1978	1979	1980	1981	1982	1983
1508000--Prunes, dried						
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	1,093,426	2,162,476	2,216,983	3,155,901	3,043,513	257,400
ALL OTHER	1,557,437	1,489,007	1,698,066	1,589,117	1,112,364	1,836,439
TOTAL	2,650,863	3,651,483	3,915,049	4,745,018	4,155,877	2,093,839
SOUTH AMERICA	4,394,481	3,042,989	2,996,007	3,674,845	2,917,817	1,670,952
TOTAL	7,045,344	6,694,472	6,911,056	8,419,863	7,073,694	3,764,791
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	0
Belgium and Luxembourg	3,638,316	3,119,345	3,751,593	2,907,281	2,141,529	1,545,243
Denmark	5,961,018	6,205,729	4,383,651	5,550,674	3,476,279	3,038,031
France	11,324,402	4,208,830	10,244,386	12,604,890	9,971,760	4,895,823
Germany, West	11,371,653	8,257,799	10,469,403	13,165,001	12,431,471	9,647,195
Greece	1,800	0	6,300	82,300	401,875	655,964
Ireland	325,965	117,166	285,353	361,776	201,913	65,310
Italy	20,770,785	11,741,477	18,003,246	19,440,514	19,246,522	12,541,052
Netherlands	2,193,868	1,700,580	2,697,918	2,145,966	2,959,410	5,235,271
United Kingdom	4,993,621	5,521,016	2,703,980	5,598,692	7,569,913	8,979,052
Total	60,581,428	40,871,972	52,545,830	61,857,094	58,400,672	46,602,941
OTHER W. EUROPE:						
Austria	868,502	472,748	1,027,153	904,949	1,016,257	760,234
Cyprus	3,600	16,800	1,800	9,936	47,798	27,700
Finland	5,568,806	5,797,531	6,333,110	6,942,529	5,308,644	5,883,826
Gibraltar	33,068	0	5,300	0	0	0
Iceland	216,351	121,539	179,053	118,637	91,073	106,182
Malta and Gozo	1,980	3,960	13,891	6,105	6,716	5,720
Norway	5,570,710	3,444,778	3,461,979	4,309,119	4,169,193	3,831,867
Portugal	0	0	29,385	116,010	101,188	147,860
Spain	3,223,444	2,569,296	2,020,250	2,911,520	3,910,929	6,038,848
Sweden	6,632,820	4,923,052	5,813,036	6,073,437	6,219,717	5,412,847
Switzerland	1,136,598	1,429,310	1,483,248	1,800,034	1,414,596	1,589,488
Turkey	0	0	0	0	0	0
Yugoslavia	0	0	0	0	0	40,013
ASIA:						
Bahrain	0	0	5,606	0	4,200	0
Brunei	16,261	0	2,614	3,924	2,198	2,830
Hong Kong	935,539	657,930	554,791	416,171	252,379	918,162
India	11,542	4,659	3,578	3,950	4,298	3,178
Indonesia	23,810	0	11,780	4,592	7,687	17,250
Israel	3,950	320,902	113,286	61,760	2,640	424,591

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period: Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1508000--Prunes, dried						
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	1,603,509	2,292,960	2,742,004	3,810,275	482,552	631,555
ALL OTHER	1,023,768	1,321,507	1,379,809	1,166,100	72,828	132,471
TOTAL	2,627,277	3,614,467	4,121,813	4,976,375	555,380	764,026
SOUTH AMERICA	1,402,804	1,235,145	722,686	700,713	1,527	1,021,088
TOTAL	4,030,081	4,849,612	4,844,499	5,677,088	556,907	1,785,114
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	148,250
Belgium and Luxembourg	1,310,016	1,152,236	1,316,062	1,204,091	167,351	0
Denmark	2,908,737	2,755,930	4,991,633	4,379,866	391,266	632,106
France	10,546,128	1,336,172	2,799,365	2,425,656	635,827	446,192
Germany, West	12,042,368	10,626,470	15,438,330	18,307,925	2,118,337	3,654,340
Greece	241,872	284,536	990,651	435,331	82,672	0
Ireland	116,792	73,430	64,072	118,152	43,902	0
Italy	13,820,314	16,335,732	17,461,864	17,298,884	1,760,489	3,054,150
Netherlands	4,224,732	2,113,687	6,367,029	4,929,198	1,067,901	490,766
United Kingdom	6,429,257	6,005,560	7,011,762	7,601,451	1,442,283	1,136,896
Total	51,640,216	40,683,753	56,440,768	56,700,554	7,710,028	9,562,700
OTHER W. EUROPE:						
Austria	1,121,363	419,795	663,018	729,003	185,781	84,891
Cyprus	221,800	3,600	10,740	23,593	0	0
Finland	4,830,517	4,857,405	4,315,583	5,669,817	743,172	85,680
Gibraltar	0	0	0	0	0	0
Iceland	30,120	33,393	13,925	43,140	3,000	3,355
Malta and Gozo	0	6,724	23,316	2,100	0	0
Norway	2,972,894	2,378,707	3,067,690	3,157,854	445,837	587,381
Portugal	81,779	90,275	243,589	379,771	35,750	0
Spain	4,426,172	3,361,663	5,610,825	3,917,225	240,687	243,395
Sweden	5,665,894	5,600,745	5,910,605	6,320,337	998,542	1,597,472
Switzerland	1,345,916	1,459,592	1,272,911	1,307,357	171,643	302,794
Turkey	4,095	0	0	0	0	0
Yugoslavia	0	0	0	0	0	0
ASIA:						
Bahrain	792	0	0	0	0	0
Brunei	3,077	7,162	10,269	13,245	6,075	0
Hong Kong	450,316	548,060	1,913,991	1,208,947	143,234	301,414
India	2,897	0	0	31,747	0	0
Indonesia	4,560	6,742	1,726	0	0	0
Israel	329,965	766,796	2,227,217	2,933,294	467,771	1,000,131

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner — Time period	1978	1979	1980	1981	1982	1983
1508000--Prunes, dried						
Japan	5,481,568	6,197,623	7,676,250	13,568,210	18,564,632	23,810,568
Jordan	0	0	0	0	0	0
Korea, South	545	4,500	0	41,648	0	52,040
Kuwait	19,126	12,000	26,125	77,217	42,750	10,650
Lebanon	9,534	10,200	16,800	8,970	123,785	241,520
Malaysia	641,943	624,418	557,029	678,871	1,005,930	1,024,209
Philippines	9,600	0	0	33,600	100,800	147,198
Saudi Arabia	2,100	15,553	0,493	78,581	120,947	307,831
Singapore	1,531,283	1,367,748	099,727	1,100,699	1,357,113	1,634,806
Syria	4,800	0	0	0	0	0
Taiwan	1,131,094	843,097	974,797	1,107,598	1,059,202	1,337,350
Thailand	26,426	0	104,051	46,140	40,383	66,704
United Arab Emirates	0	6,712	15,126	38,757	61,875	49,207
Total	9,849,121	10,065,342	12,222,053	17,270,688	22,750,819	30,048,094
MIDDLE EAST	39,510	365,367	237,436	265,285	356,197	1,033,799
OCEANIA:						
AUSTRALIA	216,048	268,555	296,755	540,221	1,082,483	1,262,249
NEW ZEALAND	1,274,126	1,230,864	1,069,096	812,290	1,300,333	1,231,929
ALL OTHER	53,969	55,998	74,665	78,519	94,172	41,675
Total	1,544,143	1,555,417	1,440,516	1,431,030	2,476,988	2,535,853
AFRICA:						
ANGOLA	0	0	0	0	0	0
ALL OTHER	66,830	59,182	1,141,672	2,510,312	2,306,518	1,198,681
Total	66,830	59,182	1,141,672	2,510,312	2,306,518	1,198,681
1516000--Peaches and nectarines, prep:						
CANADA	49,017,302	46,408,478	42,547,027	35,457,160	29,848,442	18,370,357
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	38,613	16,290	3,265,801	20,661,678	55,723	13,220
ALL OTHER	2,456,708	3,105,858	3,219,313	1,686,380	1,583,246	1,462,406
TOTAL	2,495,321	3,122,148	6,485,114	22,348,058	1,638,969	1,475,626
SOUTH AMERICA	1,359,822	3,637,650	3,105,505	2,764,994	4,313,618	1,052,939
TOTAL	3,855,143	6,759,798	9,590,619	25,113,052	5,952,587	2,528,565
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	3,362,671	1,779,672	1,249,740	1,354,614	1,199,427	104,310
Denmark	1,224,912	1,598,013	612,932	576,046	138,279	112,591
France	183,620	65,300	78,829	33,750	0	0
Germany, West	47,684,844	9,485,211	19,053,143	16,028,552	7,590,757	7,089,175
Greece	6,750	0	0	0	0	1,200
Italy	490,027	215,100	89,675	27,505	32,903	0
Netherlands	3,426,911	6,862,980	5,058,673	1,318,326	497,162	472,417

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner	Time period 1984	1985	1986	1987	January-February 1987	1988
1508000--Prunes, dried						
Japan	18,929,249	19,500,810	17,757,252	19,590,112	2,045,935	3,366,697
Jordan	2,390	3,800	0	0	0	8,612
Korea, South	4,040	10,464	0	0	0	30,250
Kuwait	91,460	62,218	88,417	131,367	0	28,535
Lebanon	3,960	232,350	34,972	6,000	0	0
Malaysia	755,238	99,296	368,273	787,196	97,861	59,601
Philippines	0	0	139,942	166,697	18,468	67,573
Saudi Arabia	178,940	198,444	310,544	433,424	131,163	182,645
Singapore	1,531,265	1,047,536	1,890,924	1,226,264	110,626	209,370
Syria	1,200	0	0	0	0	0
Taiwan	772,653	1,281,494	1,340,608	1,786,721	263,137	676,330
Thailand	97,419	11,424	36,209	11,935	0	45,123
United Arab Emirates	48,549	33,613	57,543	96,105	37,125	28,138
Total	23,207,970	23,810,209	26,177,887	28,423,054	3,321,395	6,004,419
MIDDLE EAST	657,256	1,297,221	2,718,693	3,600,190	636,059	1,248,061
OCEANIA:						
AUSTRALIA	1,954,675	1,695,329	1,931,273	1,027,198	114,577	150,805
NEW ZEALAND	801,484	705,094	727,680	834,133	64,046	82,161
ALL OTHER	59,353	18,258	54,859	61,390	11,251	26,885
Total	2,815,512	2,418,681	2,713,812	1,922,721	189,874	259,851
AFRICA:						
ANGOLA	0	0	0	1,511	0	0
ALL OTHER	1,066,715	7,058,880	96,563	0	0	0
Total	1,066,715	7,058,880	96,563	1,511	0	0
1516000--Peaches and nectarines, prep:						
CANADA	13,213,115	6,981,237	6,405,394	3,674,301	686,911	1,131,467
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	40,565	10,963	74,409	80,082	0	30,260
ALL OTHER	1,638,133	2,040,254	2,054,027	1,604,107	258,388	298,401
TOTAL	1,678,698	2,051,217	2,128,436	1,684,189	258,388	328,661
SOUTH AMERICA	70,983	114,352	98,693	92,691	0	48,860
TOTAL	1,749,681	2,165,569	2,227,129	1,776,880	258,388	377,521
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	53,507	0	0	2,549	0	0
Denmark	80,275	0	0	0	0	0
France	0	0	0	0	0	0
Germany, West	10,160	0	14,450	41,700	0	0
Greece	2,988	1,800	192,581	0	0	0
Italy	83,054	0	9,000	0	0	0
Netherlands	138,952	167,128	253,571	254,268	31,275	119,204

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner — Time period	1978	1979	1980	1981	1982	1983
1516000--Peaches and nectarines, prep:						
United Kingdom	9,173,030	578,511	762,377	393,126	97,363	43,380
Total	65,552,765	20,584,787	26,905,369	19,731,919	9,555,891	7,823,073
OTHER W. EUROPE:						
Austria	2,173,643	580,856	430,103	440,460	175,542	66,347
Cyprus	22,395	45,675	4,350	10,125	0	22,500
Finland	2,105,266	2,214,467	1,519,952	2,024,945	471,003	247,008
Iceland	4,600	75,365	153,594	128,014	52,433	8,780
Norway	3,540,986	2,450,216	2,886,583	1,829,526	1,701,409	557,145
Portugal	0	12,720	6,528	0	0	0
Spain	0	0	0	0	1,200	0
Sweden	3,942,789	4,612,752	4,441,430	3,148,927	1,994,617	861,068
Switzerland	4,651,224	943,380	715,949	492,829	824,570	109,678
Turkey	0	0	0	2,000	0	0
ASIA:						
Bahrain	23,205	62,708	98,705	51,358	6,435	46,327
Brunei	0	0	0	0	0	18,000
China	0	0	0	37,625	0	44,000
Hong Kong	1,327,135	2,716,085	1,685,089	848,949	2,964,193	960,870
India	4,500	0	2,250	0	0	0
Indonesia	174,013	216,599	254,802	166,237	300,102	28,675
Iran	29,338	0	0	0	0	0
Israel	36,300	13,250	11,700	33,615	4,628	25,834
Japan	44,938,874	23,522,540	28,485,909	21,889,654	22,553,608	18,469,788
Jordan	9,787	26,162	15,345	32,064	43,401	16,314
Korea, South	253,590	19,207	10,554	44,766	43,746	162,018
Kuwait	530,557	263,131	496,458	279,778	277,187	303,730
Lebanon	140,337	162,642	125,310	92,701	101,154	110,780
Malaysia	202,871	336,801	140,074	237,143	171,560	236,640
Oman	17,049	4,500	20,834	6,506	24,460	59,718
Pakistan	2,880	0	0	0	1,200	0
Philippines	203,056	0	3,059	307,625	446,897	412,450
Qatar	91,314	48,163	17,653	32,112	27,659	9,615
Saudi Arabia	1,329,590	825,160	1,229,935	1,494,279	1,297,862	2,254,724
Singapore	1,403,344	1,647,606	2,265,490	1,200,195	1,519,343	964,855
Taiwan	1,850,895	2,746,576	2,536,074	1,606,506	1,100,529	2,459,889
Thailand	1,807	21,203	0	0	2,200	7,295
United Arab Emirates	205,624	101,417	129,892	77,123	118,534	89,596
Yemen (Sana)	0	0	0	0	12,840	3,045
Total	52,776,066	32,733,750	37,529,133	28,438,236	31,017,538	26,684,163
MIDDLE EAST	2,413,101	1,507,133	2,145,832	2,099,536	1,914,160	2,919,683

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner — Time period	1984	1985	1986	1987	January-February 1987	January-February 1988
1516000--Peaches and nectarines, prep						
United Kingdom	17,568	252,684	193,287	78,553	58,306	0
Total	386,504	421,612	662,889	377,070	89,581	119,204
OTHER W. EUROPE:						
Austria	0	54,036	0	0	0	0
Cyprus	0	0	0	0	0	0
Finland	125,727	656,088	208,003	295,223	110,723	118,843
Iceland	0	0	4,050	0	0	0
Norway	141,186	733,953	1,043,522	208,716	58,830	7,200
Portugal	0	0	9,045	0	0	0
Spain	33,705	0	0	0	0	0
Sweden	864,854	468,702	472,870	52,979	3,600	17,405
Switzerland	28,365	12,000	98,426	118,050	0	0
Turkey	0	0	0	0	0	0
ASIA:						
Bahrain	44,067	21,200	13,950	9,675	0	0
Brunei	18,000	0	6,750	0	0	0
China	0	0	0	2,400	2,400	0
Hong Kong	821,304	841,364	476,856	799,151	21,735	28,989
India	0	0	0	0	0	0
Indonesia	157,851	129,531	14,748	111,354	0	0
Iran	0	0	0	0	0	0
Israel	0	0	0	33,600	0	0
Japan	6,722,359	5,865,625	22,063,730	19,345,025	775,668	2,173,533
Jordan	13,500	30,612	8,265	0	0	0
Korea, South	31,437	55,947	13,024	40,013	4,156	0
Kuwait	338,985	313,674	343,529	191,136	34,273	9,360
Lebanon	18,000	0	4,500	9,000	0	0
Malaysia	332,160	244,693	91,592	116,051	6,383	27,510
Oman	84,967	29,936	0	36,914	0	0
Pakistan	0	0	0	0	0	0
Philippines	65,250	195,450	672,155	727,700	107,710	0
Qatar	45,240	13,485	129,420	46,762	0	0
Saudi Arabia	1,046,422	425,915	526,365	610,050	84,810	90,045
Singapore	759,662	1,031,835	937,706	1,243,640	85,927	44,073
Taiwan	1,584,217	925,237	2,758,033	4,146,454	284,196	898,875
Thailand	17,100	4,500	4,406	18,500	0	0
United Arab Emirates	133,751	89,892	48,804	73,189	13,080	0
Yemen (Sana)	0	0	0	0	0	0
Total	12,234,272	10,218,896	28,113,833	27,560,614	1,420,338	3,272,385
MIDDLE EAST	1,724,932	924,714	1,074,833	1,010,326	132,163	99,405

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: FIRST UNIT OF QUANTITY
(Pounds)

Schedule B commodity Partner / Time period	1978	1979	1980	1981	1982	1983
1516000--Peaches and nectarines, prep						
OCEANIA:						
AUSTRALIA	202,000	75,220	0	24,000	[illegible]	0
NEW ZEALAND	0	0	0	0	[illegible]	0
ALL OTHER	156,840	196,421	77,059	78,119	[illegible]	371,177
Total	358,840	271,641	77,059	102,119	125,178	371,177
AFRICA:						
ANGOLA	0	0	0	0	0	6,525
ALL OTHER	98,355	282,387	19,400	20,100	72,188	150,917
Total	98,355	282,387	19,400	20,100	72,188	157,442
1517000--Pears, prepared or preserved						
CANADA	2,908,048	1,920,708	1,079,116	1,398,803	983,317	953,371
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	9,576	17,541	158,737	152,928	51,596	8,208
ALL OTHER	764,115	1,076,708	635,180	765,953	347,017	398,980
TOTAL	773,691	1,094,249	793,917	918,881	398,613	407,188
SOUTH AMERICA	218,407	432,021	418,937	295,663	313,963	75,947
TOTAL	992,098	1,526,270	1,212,854	1,214,544	712,576	483,135
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	149,934	23,569	66,388	214,625	85,260	0
Denmark	120,565	111,152	27,816	78,599	47,806	12,174
France	1,639,120	238,950	16,155	0	0	0
Germany, West	598,776	79,925	254,984	35,705	16,804	11,550
Greece	0	0	0	3,996	2,607	0
Italy	37,350	0	0	0	76,823	0
Netherlands	253,579	160,146	208,593	229,674	190,420	238,067
United Kingdom	20,812	22,960	1,800	117,920	52,706	1,050
Total	2,820,166	636,702	578,736	680,519	472,426	265,841
OTHER W. EUROPE:						
Austria	75,600	0	10,800	0	0	0
Cyprus	30,015	8,700	0	0	0	7,875
Finland	37,940	64,260	54,974	58,212	70,320	14,175
Iceland	0	25,230	72,601	82,393	40,347	19,500
Norway	440,943	194,569	258,071	257,146	119,086	45,864
Portugal	0	2,400	4,800	0	0	0
Sweden	90,728	108,234	345,497	232,900	556,152	72,248
Switzerland	235,971	17,185	22,427	90,555	76,415	7,728
ASIA:						
Bahrain	10,590	58,475	19,077	11,163	1,080	18,773
Hong Kong	197,703	166,928	103,796	27,489	93,863	41,070
Indonesia	10,797	63,087	38,743	52,996	162,791	32,751

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1984	1985	1986	1987	January-February 1987	January-February 1988
1516000--Peaches and nectarines, prep						
OCEANIA:						
AUSTRALIA	0	0	0	9,371	0	0
NEW ZEALAND	0	0	0	0	0	0
ALL OTHER	594,660	495,536	107,219	168,277	25,796	63,774
Total	594,660	495,536	107,219	177,648	25,796	63,774
AFRICA:						
ANGOLA	0	0	0	0	0	0
ALL OTHER	0	18,450	88,096	0	0	17,010
Total	0	18,450	88,096	0	0	17,010
1517000--Pears, prepared or preserved:						
CANADA	279,225	61,364	53,952	297,872	29,568	40,048
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	60,083	5,962	95,269	26,287	0	17,615
ALL OTHER	662,235	181,047	313,544	196,668	37,555	39,272
TOTAL	722,318	187,009	408,813	222,955	37,555	56,887
SOUTH AMERICA	14,365	74,430	17,397	16,515	16,515	0
TOTAL	736,683	261,439	426,210	239,470	54,070	56,887
WESTERN EUROPE						
EC-10:						
Belgium and Luxembourg	6,144	0	0	0	0	0
Denmark	25,052	0	0	0	0	0
France	0	0	0	0	0	0
Germany, West	1,200	0	5,438	0	0	0
Greece	0	0	0	0	0	0
Italy	33,379	0	0	0	0	0
Netherlands	78,366	127,164	109,448	116,024	19,488	31,640
United Kingdom	10,897	0	51,765	149,535	26,370	0
Total	155,038	127,164	166,651	265,559	45,858	31,640
OTHER W. EUROPE						
Austria	0	21,648	0	0	0	0
Cyprus	0	0	0	0	0	0
Finland	7,560	10,622	7,200	10,440	10,440	0
Iceland	0	0	7,020	0	0	0
Norway	25,890	209,735	310,113	193,969	60,030	58,307
Portugal	0	0	2,125	0	0	0
Sweden	49,600	144,718	604,314	13,200	7,600	6,000
Switzerland	20,850	11,760	33,953	0	0	0
ASIA:						
Bahrain	13,291	0	0	7,725	0	0
Hong Kong	78,517	13,916	61,537	53,634	0	0
Indonesia	97,000	103,355	6,626	8,326	0	0

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner — Time period	1978	1979	1980	1981	1982	1983
1517000--Pears, prepared or preserved						
Iran	35,485	0	0	0	0	0
Israel	0	17,125	2,400	0	7,350	0
Japan	126,137	191,894	243,138	177,909	149,725	211,218
Jordan	6,742	4,500	19,350	6,122	2,407	8,666
Korea, South	0	0	4,400	3,300	2,120	3,267
Kuwait	83,958	58,448	123,327	46,422	40,208	51,350
Lebanon	15,226	56,115	65,678	24,330	20,663	27,349
Malaysia	27,638	38,727	22,605	39,429	22,748	14,355
Oman	7,740	1,980	8,360	4,421	1,080	46,200
Pakistan	1,200	0	0	0	0	0
Philippines	6,600	1,728	0	12,207	34,409	12,978
Qatar	31,910	32,325	7,932	20,902	18,916	13,395
Saudi Arabia	432,264	763,939	707,201	1,127,712	1,050,431	1,531,401
Singapore	180,630	135,577	65,933	42,418	53,908	29,955
Taiwan	20,532	70,050	11,250	100,505	0	0
Thailand	0	3,185	0	0	0	0
United Arab Emirates	88,124	69,024	54,205	19,811	73,130	43,214
Yemen (Sana)	0	0	0	0	0	2,610
Total	1,283,276	1,733,107	1,497,395	1,717,139	1,734,829	2,088,552
MIDDLE EAST	712,039	1,061,931	1,007,530	1,260,886	1,215,265	1,742,958
OCEANIA:						
AUSTRALIA	0	0	0	45,864	0	0
ALL OTHER	106,580	199,098	393,861	283,651	362,426	171,459
Total	106,580	199,098	393,861	329,515	362,426	171,459
AFRICA:						
ANGOLA	0	0	0	0	0	841
ALL OTHER	75,350	368,568	43,610	177,914	492,971	41,314
Total	75,350	368,568	43,610	177,914	492,971	42,155
1519500--Fruit mixtures, nspf, prep						
CANADA	40,698,404	41,904,401	34,631,863	39,561,860	29,576,754	20,093,977
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	495,923	400,157	653,854	5,472,176	593,721	7,272
ALL OTHER	5,079,062	5,363,312	6,002,168	5,952,500	5,189,750	5,433,621
TOTAL	5,574,985	5,763,469	6,656,022	11,424,676	5,783,471	5,440,893
SOUTH AMERICA	1,278,961	1,256,235	2,661,937	1,239,723	1,750,925	600,900
TOTAL	6,853,946	7,019,704	9,317,959	12,664,399	7,534,396	6,041,793
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	1,053,394	952,747	1,864,747	2,668,902	1,620,578	239,835
Denmark	691,952	1,085,753	393,556	203,284	55,697	47,284
France	559,768	235,846	73,645	36,593	57,014	32,250

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1984	1985	1986	1987	January-February 1987	January-February 1988
1517000--Pears, prepared or preserved:						
Iran	0	0	0	0	0	0
Israel	0	0	0	8,700	8,700	0
Japan	80,140	109,518	222,387	581,457	3,480	21,806
Jordan	4,500	12,623	5,220	0	0	0
Korea, South	6,734	0	0	8,647	0	0
Kuwait	57,865	41,282	59,127	120,488	36,218	0
Lebanon	16,650	4,500	0	7,537	0	0
Malaysia	26,329	21,975	0	8,145	0	4,050
Oman	30,970	25,222	0	30,805	0	0
Pakistan	0	0	0	0	0	0
Philippines	0	13,377	28,939	60,799	49,921	0
Qatar	34,581	17,400	1,785	26,698	0	0
Saudi Arabia	319,932	178,649	206,798	161,708	0	20,280
Singapore	40,400	24,400	99,268	117,645	0	0
Taiwan	4,680	0	68,700	37,490	0	0
Thailand	3,200	0	2,188	0	0	0
United Arab Emirates	37,447	12,942	17,457	7,575	0	0
Yemen (Sana)	0	0	0	0	0	0
Total	882,366	579,189	786,032	1,247,379	98,322	46,136
MIDDLE EAST	545,236	292,618	293,387	371,236	44,918	20,280
OCEANIA:						
AUSTRALIA	0	0	0	0	0	0
ALL OTHER	317,357	281,423	93,714	222,232	11,900	75,088
Total	317,357	281,423	93,714	222,232	11,900	75,088
AFRICA:						
ANGOLA	0	0	0	0	0	0
ALL OTHER	31,785	60,211	0	0	0	8,100
Total	31,785	60,211	0	0	0	8,100
1519500--Fruit mixtures, nspf, prep						
CANADA	17,887,036	11,068,571	7,905,466	13,778,630	960,414	2,300,011
LATIN AMERICA						
CENTRAL AMERICA:						
MEXICO	262,096	466,793	827,842	257,268	20,507	175,918
ALL OTHER	4,435,800	6,252,254	4,556,739	4,281,796	592,166	744,206
TOTAL	4,697,896	6,719,047	5,384,581	4,539,064	612,673	920,124
SOUTH AMERICA	588,693	95,593	542,524	216,169	4,416	14,309
TOTAL	5,286,589	6,814,640	5,927,105	4,755,233	617,089	934,433
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	43,068	32,625	30,800	0	0	0
Denmark	27,172	0	0	14,268	0	3,295
France	1,124	5,500	0	313,775	0	0

Continued--

Appendix table 10-- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity, Partner / Time period	1978	1979	1980	1981	1982	1983
1510520: Fruit mixtures, nspf, prep.						
Germany, West	2,408,922	5,101,591	15,412,029	11,848,338	5,997,276	3,773,149
Greece	2,500	50,720	29,101	6,401	19,922	15,279
Italy	220,425	11,150	20,501	25,100	28,100	33,728
Netherlands	3,940,777	5,010,085	5,047,918	4,119,062	3,735,000	1,966,813
United Kingdom	1,138,685	364,025	798,229	933,633	335,532	567,950
Total	10,213,323	17,114,512	21,040,323	20,063,017	11,883,029	6,882,288
OTHER W. EUROPE						
Austria	1,708,957	1,088,812	1,239,451	1,216,239	111,661	27,151
Cyprus	22,745	260,277	6,225	0	0	3,375
Finland	874,825	2,069,350	1,604,594	1,664,383	1,365,193	571,667
Iceland	20,662	179,756	167,593	106,861	94,268	32,310
Malta and Gozo	0	0	0	7,893	0	0
Norway	2,686,191	3,425,059	3,001,491	2,707,922	2,376,366	1,097,231
Portugal	13,760	11,040	2,880	0	0	0
Spain	0	6,525	0	0	2,400	0
Sweden	1,157,025	4,400,682	5,712,820	3,555,152	3,350,596	1,667,150
Switzerland	5,338,075	5,463,735	6,016,142	3,247,014	2,747,713	758,568
ASIA						
Bahrain	33,956	176,361	144,422	156,580	37,977	92,655
Brunei	4,500	0	4,500	4,500	0	62,440
China	0	0	0	0	0	17,600
Hong Kong	4,147,787	4,928,809	6,904,321	3,124,827	6,334,871	5,491,433
India	4,500	0	3,375	0	0	0
Indonesia	1,014,923	807,445	1,117,223	918,120	1,347,025	226,326
Iran	41,600	0	0	0	0	0
Israel	117,300	578,072	933,356	519,300	33,559	86,651
Japan	7,218,472	6,873,588	8,554,948	8,452,319	7,063,116	6,755,663
Jordan	0	45,901	156,127	89,421	83,581	148,908
Korea, South	494,437	471,810	1,060,264	1,461,584	683,559	877,779
Kuwait	486,922	408,918	861,059	597,567	211,556	524,513
Lebanon	371,255	802,140	1,117,763	376,544	891,869	1,305,617
Malaysia	312,591	328,188	299,791	386,129	266,144	705,805
Oman	55,746	5,690	56,875	68,731	40,495	83,215
Pakistan	0	1,156	0	0	1,250	0
Philippines	227,250	79,601	20,768	446,700	867,500	1,542,412
Qatar	102,012	115,786	129,699	105,126	68,944	48,035
Saudi Arabia	3,160,936	1,912,239	3,059,750	2,845,831	3,560,353	6,564,169
Singapore	3,697,253	4,172,405	6,215,644	3,619,931	4,361,855	2,567,080
Syria	0	0	0	0	0	0
Taiwan	245,023	521,270	588,900	429,176	442,126	1,293,724
Thailand	4,450	7,255	0	25,550	34,075	2,250

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity / Partner (Time period)	1984	1985	1986	1987	January-February	
					1987	1988
1519500--Fruit mixtures, nspf, prep						
Germany, West	65,005	6,023	326,025	217,340	217,340	147,490
Greece	0	0	82,853	0	0	0
Italy	355,602	4,500	0	0	0	0
Netherlands	402,143	299,138	409,298	501,098	99,018	140,581
United Kingdom	15,913	202,027	561,274	168,402	156,478	3,200
Total	940,027	549,813	1,410,250	1,214,883	472,836	294,566
OTHER W. EUROPE						
Austria	0	110,634	0	0	0	0
Cyprus	2,435	0	0	0	0	0
Finland	292,964	94,775	63,747	201,555	79,330	107,200
Iceland	0	0	9,288	0	0	0
Malta and Gozo	0	0	0	0	0	0
Norway	837,470	1,015,703	1,514,443	584,773	56,220	37,077
Portugal	0	0	0	0	0	0
Spain	0	9,000	0	0	0	0
Sweden	2,114,066	471,290	663,962	907,985	78,080	247,010
Switzerland	83,100	9,710	269,238	289,190	0	0
ASIA						
Bahrain	86,885	111,504	0	22,325	0	0
Brunei	33,750	27,000	27,000	33,300	0	0
China	0	1,500	0	0	0	0
Hong Kong	3,596,656	4,054,225	5,820,522	8,311,011	591,511	436,526
India	33,971	0	0	0	0	0
Indonesia	548,825	244,[illegible]	78,754	19,998	0	0
Iran	0	0	0	0	0	0
Israel	13,293	0	0	0	0	0
Japan	5,103,621	4,172,316	7,136,753	8,649,820	813,317	1,713,960
Jordan	21,600	101,35[illegible]	0	0	0	0
Korea, South	2,005,319	1,621,858	1,[illegible]26,551	675,622	56,250	21,208
Kuwait	388,818	212,033	155,396	377,891	0	2,050
Lebanon	135,365	99,366	52,707	39,947	0	0
Malaysia	1,211,520	581,732	[illegible]103	210,816	5,[illegible]	119,715
Oman	12,613	63,720	17,661	12,312	0	1,511
Pakistan	0	0	0	[illegible]	0	0
Philippines	33,750	192,[illegible]	2,779,819	2,833,608	157,11[illegible]	352,729
Qatar	111,733	119,0[illegible]	93,918	191,136	32,194	32,174
Saudi Arabia	1,597,795	1,430,1[illegible]	1,378,100	1,068,351	171,822	451,710
Singapore	1,906,112	1,884,0[illegible]	2,110,101	1,270,162	61,818	365,228
Syria	0	0	0	4,12[illegible]	0	0
Taiwan	581,227	631,13[illegible]	816,208	672,[illegible]	[illegible]682	128,090
Thailand	53,580	22,611	11,163	[illegible]	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1978	1979	1980	1981	1982	1983
1519500--Fruit mixtures, nspf, prep						
United Arab Emirates	404,886	386,583	774,973	311,440	246,190	273,273
Yemen (Sana)	0	0	0	0	19,600	23,850
Total	22,145,799	22,623,217	32,033,758	23,939,376	26,595,645	28,693,398
MIDDLE EAST	4,774,613	4,431,690	7,234,024	5,070,540	5,194,124	9,150,886
OCEANIA						
AUSTRALIA	0	5,429	12,811	232,695	73,935	6,791
NEW ZEALAND	9,330	0	0	26,025	5,263	28,438
ALL OTHER	281,803	388,639	574,988	528,714	814,777	640,806
Total	291,133	394,068	587,799	787,434	893,975	676,035
AFRICA						
ANGOLA	0	0	0	0	0	8,529
ALL OTHER	386,925	719,274	510,785	773,315	1,000,472	1,968,954
Total	386,925	719,274	510,785	773,315	1,000,472	1,977,483
1611800--Cinnamon and cassia						
CANADA	132,507	74,400	68,274	108,719	35,913	163,031
LATIN AMERICA						
CENTRAL AMERICA						
MEXICO	329,608	305,711	123,031	188,662	116,591	583,343
ALL OTHER	168,232	104,530	87,757	75,853	113,168	113,272
TOTAL	497,840	410,241	210,788	264,515	229,759	696,615
SOUTH AMERICA	252,219	189,831	378,060	181,453	99,997	52,666
TOTAL	750,059	600,072	588,848	445,968	329,756	749,281
WESTERN EUROPE						
EC-10						
Belgium and Luxembourg	499	1,339	0	0	0	0
Denmark	0	0	374	0	0	0
France	21,869	316	3,834	34,079	514	754
Germany, West	57,650	3,014	2,449	14,536	7,591	4,398
Greece	5,504	5,818	9,021	1,359	998	0
Italy	1,961	0	0	735	0	773
Netherlands	286,197	76,737	1,395	433	564	962
United Kingdom	32,125	9,993	1,330	15,893	0	0
Total	405,805	97,217	18,103	67,035	9,667	6,887
OTHER W. EUROPE						
Cyprus	5,718	8,961	971	0	0	0
Finland	0	0	0	0	6,000	0
Malta and Gozo	2,253	4,639	3,530	0	0	0
Norway	0	2,181	0	0	185	0
Spain	13,500	8,280	528	188	188	0
Sweden	3,291	18,882	3,321	1,822	923	0
Switzerland	0	0	0	0	0	477

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1519500--Fruit mixtures, nspf, prep						
United Arab Emirates	376,693	295,837	248,144	235,126	29,720	63,611
Yemen (Sana)	0	0	0	0	0	0
Total	17,750,842	15,872,860	23,096,703	27,588,234	2,262,461	3,692,445
MIDDLE EAST	2,838,422	2,436,425	2,276,226	2,855,160	531,036	554,089
OCEANIA:						
AUSTRALIA	0	1,100	0	0	0	0
NEW ZEALAND	9,375	0	13,720	1,618	0	720
ALL OTHER	1,159,895	590,311	408,558	547,867	34,170	181,560
Total	1,169,270	591,411	422,278	549,485	34,170	182,280
AFRICA:						
ANGOLA	0	0	0	0	0	0
ALL OTHER	1,315,312	199,835	39,506	237,362	0	8,910
Total	1,315,312	199,835	39,506	237,362	0	8,910
1611800--Cinnamon and cassia						
CANADA	29,436	54,897	18,598	37,601	13,359	12,329
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	2,375,558	977,129	179,384	313,820	51,257	25,072
ALL OTHER	69,353	71,829	69,607	46,812	12,476	1,043
TOTAL	2,444,911	1,048,958	248,991	360,632	63,733	26,115
SOUTH AMERICA	107,006	58,454	264,565	39,008	3,031	0
TOTAL	2,551,917	1,107,412	513,556	399,610	66,764	26,115
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	0	0	0	0	0	0
Denmark	0	0	0	0	0	0
France	994	0	0	0	0	0
Germany, West	3,245	3,430	2,380	1,768	884	884
Greece	0	2,126	0	0	0	0
Italy	0	0	0	0	0	0
Netherlands	2,405	3,788	5,126	0	0	0
United Kingdom	472	0	0	1,382	0	0
Total	7,116	9,344	7,506	3,150	884	884
OTHER W. EUROPE:						
Cyprus	0	0	0	0	0	0
Finland	0	0	0	0	0	0
Malta and Gozo	0	0	0	0	0	0
Norway	0	0	0	0	0	0
Spain	0	0	0	0	0	0
Sweden	0	1,987	0	885	0	0
Switzerland	1,589	1,281	744	619	0	0

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1978	1979	1980	1981	1982	1983
1611800--Cinnamon and cassia						
ASIA						
Bahrain	222	152	202	0	170	171
Hong Kong	1,596	1,659	22,738	1,773	2,169	4,345
India	0	20,000	22,000	0	0	0
Indonesia	307	0	224	302	0	0
Israel	0	0	0	8,700	2,000	2,372
Japan	100,071	16,530	190,659	8,345	4,251	10,033
Jordan	272	0	1,074	3,656	0	0
Korea, South	19,968	6,600	1,256	690	2,125	276
Kuwait	0	2,334	0	0	0	0
Lebanon	15,063	4,579	2,722	0	0	0
Malaysia	0	0	0	240	126	133
Philippines	3,523	3,672	3,800	1,213	441	5,522
Qatar	0	5,817	0	0	0	0
Saudi Arabia	10,767	6,543	61,544	40,239	3,306	8,671
Singapore	6,852	396,630	183,452	25,636	0	0
Sri Lanka (Ceylon)	0	0	0	0	0	0
Syria	0	1,860	0	0	0	0
Taiwan	0	600	1,538	0	0	800
Thailand	2,088	0	898	2,618	557	917
United Arab Emirates	4,245	941	272	0	0	201
Total	164,974	467,917	492,379	93,412	15,145	33,441
MIDDLE EAST	30,569	22,226	65,814	52,595	5,476	11,415
OCEANIA						
AUSTRALIA	10,857	4,340	1,537	1,080	960	705
ALL OTHER	0	0	0	0	2,373	360
Total	10,857	4,340	1,537	1,080	3,333	1,065
AFRICA						
ALL OTHER	51,222	119,463	59,600	0	10,402	0
Total	51,222	119,463	59,600	0	10,402	0
1616000--Mustard flour & prep mustard						
CANADA	392,784	724,615	305,018	539,555	331,681	499,142
LATIN AMERICA						
CENTRAL AMERICA						
MEXICO	117,642	102,431	89,137	190,770	80,061	74,245
ALL OTHER	286,934	251,939	387,679	393,137	340,832	274,136
TOTAL	404,576	354,370	476,816	583,907	420,893	348,381
SOUTH AMERICA	177,253	213,236	423,332	472,177	267,497	85,928
TOTAL	581,829	567,606	900,148	1,056,084	688,390	434,309

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1984	1985	1986	1987	January-February	
					1987	1988
1611800--Cinnamon and cassia						
ASIA						
Bahrain	0	0	0	0	0	0
Hong Kong	1,946	2,733	1,340	512	512	0
India	0	0	0	0	0	0
Indonesia	0	0	374	0	0	0
Israel	9,280	0	4,200	4,000	0	0
Japan	2,304	2,617	1,597	0	0	0
Jordan	0	0	0	0	0	0
Korea, South	450	2,000	1,760	0	0	0
Kuwait	0	0	4,160	2,550	2,550	0
Lebanon	0	0	0	0	0	0
Malaysia	0	0	8,083	0	0	0
Philippines	0	0	850	0	0	0
Qatar	0	0	0	0	0	0
Saudi Arabia	14,541	3,601	2,300	1,854	0	0
Singapore	0	0	0	636	0	0
Sri Lanka (Ceylon)	0	2,984	0	0	0	0
Syria	0	0	0	0	0	0
Taiwan	0	0	0	0	0	0
Thailand	758	263	0	955	0	0
United Arab Emirates	0	0	1,800	0	0	0
Total	29,279	14,198	26,464	10,507	3,062	0
MIDDLE EAST	23,821	3,601	12,460	8,404	2,550	0
OCEANIA						
AUSTRALIA	0	0	543	0	0	0
ALL OTHER	0	0	0	0	0	0
Total	0	0	543	0	0	0
AFRICA						
ALL OTHER	3,300	0	0	0	0	0
Total	3,300	0	0	0	0	0
1616000--Mustard flour & prep mustard						
CANADA	374,093	221,842	111,460	386,358	220,005	75,042
LATIN AMERICA						
CENTRAL AMERICA						
MEXICO	70,776	92,619	110,962	53,261	4,500	66,997
ALL OTHER	360,227	218,283	285,546	316,230	54,500	53,331
TOTAL	431,003	310,902	396,508	369,491	59,000	120,328
SOUTH AMERICA	97,343	329,799	165,367	67,000	0	52,900
TOTAL	528,346	640,701	561,875	436,491	59,000	173,228

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner — Time period	1978	1979	1980	1981	1982	1983
1616000--Mustard flour & prep mustard:						
EC-10:						
Belgium and Luxembourg	7,200	0	789	0	10,778	10,035
France	0	0	0	0	0	0
Germany, West	239,140	7,820	280	101,614	2,325	4,002
Greece	23,298	51,400	110,164	101,257	156,119	168,250
Ireland	0	1,710	0	1,622	0	0
Italy	0	0	0	12,056	0	1,649
Netherlands	810	7,935	4,500	0	26,510	0
United Kingdom	31,848	41,521	25,082	41,141	39,969	13,636
Total	302,296	110,386	140,815	257,690	235,701	197,572
OTHER W. EUROPE:						
Cyprus	10,006	5,705	9,485	40,112	6,215	0
Iceland	2,040	0	2,100	600	0	0
Malta and Gozo	16,837	5,859	2,736	3,080	0	0
Norway	56,730	3,378	0	23,640	0	32,000
Spain	37,675	7,515	8,412	0	0	0
Sweden	3,000	108,731	0	9,784	6,000	5,200
Switzerland	0	0	0	0	19,950	16,441
ASIA:						
Bahrain	2,520	10,250	0	0	3,670	1,967
Bangladesh	0	0	0	1,530	0	0
Hong Kong	23,608	36,033	24,594	80,621	68,471	21,551
Indonesia	52,912	0	27,720	34,916	76,586	62,456
Iran	108,226	0	0	0	0	0
Israel	80,106	39,864	44,406	16,700	52,478	11,160
Japan	1,057,815	1,014,665	770,268	778,186	737,605	981,685
Jordan	0	3,840	5,550	13,510	11,576	74,938
Korea, South	5,696	25,397	0	15,291	45,247	172,236
Kuwait	19,897	23,670	34,028	20,742	81,605	47,175
Lebanon	34,091	52,488	56,571	50,907	68,217	226,118
Malaysia	30,201	0	0	0	0	4,675
Oman	0	3,600	0	0	0	0
Pakistan	0	12,500	0	0	0	0
Philippines	46,585	11,400	13,219	35,278	37,939	67,914
Qatar	900	0	1,440	1,350	824	2,541
Saudi Arabia	191,390	267,657	20,995	27,268	247,728	99,364
Singapore	33,675	27,672	26,689	129,377	28,633	63,662
Syria	3,600	49,693	0	0	5,400	0
Taiwan	19,800	12,200	22,566	9,412	14,874	23,422
Thailand	27,303	30,241	48,707	77,067	79,081	103,524
United Arab Emirates	21,745	1,800	40,641	5,979	11,093	10,131

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner — Time period	1984	1985	1986	1987	January-February 1987	January-February 1988
1616000--Mustard flour & prep mustard:						
EC-10:						
Belgium and Luxembourg	31,552	99,978	13,200	14,435	0	0
France	4,409	0	0	0	0	0
Germany, West	12,461	201,500	0	0	0	0
Greece	109,532	60,431	65,726	228,850	35,400	63,800
Ireland	0	0	0	0	0	0
Italy	0	0	0	0	0	0
Netherlands	6,600	3,072	5,073	16,459	5,073	13,100
United Kingdom	37,983	8,586	27,014	51,510	0	11,401
Total	202,537	373,567	111,013	311,254	40,473	88,301
OTHER W. EUROPE:						
Cyprus	0	0	0	0	0	0
Iceland	0	0	0	0	0	0
Malta and Gozo	0	0	0	0	0	0
Norway	0	2,900	2,800	0	0	0
Spain	10,700	0	0	0	0	0
Sweden	2,600	5,200	4,000	1,800	0	4,200
Switzerland	21,950	21,900	6,600	6,600	0	0
ASIA:						
Bahrain	10,334	30,770	1,673	0	0	0
Bangladesh	0	0	0	0	0	0
Hong Kong	66,546	29,313	39,176	38,919	0	7,729
Indonesia	94,504	58,367	7,244	31,325	0	4,845
Iran	0	0	0	0	0	0
Israel	7,900	8,250	30,796	35,955	0	0
Japan	730,404	445,155	500,116	394,645	104,322	59,154
Jordan	0	19,635	4,698	4,785	0	3,400
Korea, South	93,879	115,133	127,236	100,920	0	43,977
Kuwait	23,203	5,142	5,106	7,679	0	3,850
Lebanon	89,798	43,749	41,330	46,913	24,112	0
Malaysia	0	5,220	0	0	0	0
Oman	0	0	0	0	0	0
Pakistan	0	0	0	0	0	0
Philippines	11,000	26,929	19,570	36,780	17,800	4,008
Qatar	2,865	2,445	1,440	1,341	0	0
Saudi Arabia	220,338	122,390	124,597	169,557	0	0
Singapore	41,575	110,815	35,516	35,813	7,318	19,796
Syria	2,800	0	0	0	0	0
Taiwan	22,692	24,049	93,002	72,774	5,104	5,889
Thailand	50,574	41,813	24,396	49,043	0	0
United Arab Emirates	23,247	24,012	14,925	20,400	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period: Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1616000--Mustard flour & prep mustard:						
Total	1,770,070	1,622,970	1,137,397	1,298,134	1,571,027	1,974,519
MIDDLE EAST	472,475	452,862	203,634	136,456	482,591	473,394
OCEANIA:						
AUSTRALIA	500	2,564	24,775	0	145,676	0
NEW ZEALAND	0	0	0	0	0	0
ALL OTHER	53,702	47,580	56,307	94,878	88,996	123,922
Total	54,202	50,144	81,082	94,878	234,672	123,922
AFRICA:						
ALL OTHER	63,662	95,167	81,382	78,042	14,141	29,925
Total	63,662	95,167	81,382	78,042	14,141	29,925
1617800--Black and white pepper						
CANADA	282,111	220,931	384,559	379,925	513,452	463,467
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	33,167	54,624	45,950	53,276	30,123	102,810
ALL OTHER	202,894	326,678	366,799	403,425	314,795	247,800
TOTAL	236,061	381,302	412,749	456,701	344,918	350,610
SOUTH AMERICA	41,200	117,870	142,414	165,491	20,153	43,510
TOTAL	277,261	499,172	555,163	622,192	365,071	394,120
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	1,278	2,930	2,097	9,214	1,350	0
Denmark	12,697	14,744	22,631	27,506	41,979	12,788
France	7,556	4,304	3,350	2,083	2,249	2,497
Germany, West	34,908	37,423	43,314	28,072	37,743	48,753
Greece	3,458	3,870	3,783	11,886	9,169	1,501
Italy	6,113	2,221	5,863	5,963	336	2,853
Netherlands	13,073	2,897	14,927	1,058	1,603	42,421
United Kingdom	41,855	12,969	27,379	20,681	25,651	14,631
Total	120,938	81,358	123,344	106,463	120,080	125,444
OTHER W. EUROPE:						
Cyprus	0	0	0	0	1,227	0
Finland	2,000	0	0	0	0	0
Iceland	0	168	0	0	189	0
Norway	1,138	4,728	1,972	2,177	3,431	3,362
Portugal	2,200	0	0	0	0	0
Spain	72,621	33,090	67,075	48,685	77,295	68,470
Sweden	61,396	23,155	25,305	30,791	20,692	18,297
Switzerland	0	0	0	0	0	1,397
Yugoslavia	0	0	0	0	199	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period / Schedule B commodity / Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1616000--Mustard flour & prep mustard:						
Total	1,491,659	1,113,187	1,070,821	1,046,849	158,686	152,648
MIDDLE EAST	380,485	256,393	224,565	286,630	24,112	7,250
OCEANIA:						
AUSTRALIA	4,630	0	10,765	4,180	0	0
NEW ZEALAND	0	0	0	0	0	6,070
ALL OTHER	94,639	69,470	126,394	91,219	9,137	8,223
Total	99,269	69,470	137,159	95,399	9,137	14,293
AFRICA:						
ALL OTHER	70,921	16,800	0	0	0	0
Total	70,921	16,800	0	0	0	0
1617800--Black and white pepper						
CANADA	304,015	198,676	397,098	445,650	13,535	39,044
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	98,632	170,330	108,381	156,230	39,868	4,539
ALL OTHER	294,172	237,917	187,821	145,638	24,585	36,122
TOTAL	392,804	408,247	296,202	301,868	64,453	40,661
SOUTH AMERICA	20,017	93,291	72,831	66,878	18,516	160
TOTAL	412,821	501,538	369,033	368,746	82,969	40,821
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	0	0	0	27,089	0	0
Denmark	18,878	0	76,831	16,477	16,477	0
France	7,845	0	1,600	3,112	0	0
Germany, West	36,202	34,276	296,582	225,621	36,942	6,346
Greece	4,355	2,285	0	1,735	0	0
Italy	0	0	0	0	0	0
Netherlands	3,767	168,565	643,499	0	0	0
United Kingdom	41,310	0	0	600	600	8,241
Total	112,357	205,126	1,018,512	274,634	54,019	14,587
OTHER W. EUROPE:						
Cyprus	0	0	0	0	0	0
Finland	0	0	0	0	0	0
Iceland	0	0	0	0	0	0
Norway	4,002	3,894	3,373	8,802	1,602	0
Portugal	0	0	0	0	0	0
Spain	46,980	0	0	0	0	0
Sweden	17,989	10,638	12,866	24,707	3,632	3,403
Switzerland	12,610	4,414	2,694	4,863	0	0
Yugoslavia	0	0	0	0	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner / Time period	1978	1979	1980	1981	1982	1983
1617800--Black and white pepper						
ASIA:						
Bahrain	1,500	9,467	18,841	4,834	4,050	8,050
Hong Kong	13,941	14,227	33,934	23,685	57,402	41,463
Indonesia	416	157	1,539	700	0	0
Iran	3,860	0	0	0	0	0
Israel	8,216	0	612	0	33,222	0
Japan	43,120	64,230	43,009	53,669	63,446	38,314
Jordan	160	194	18,744	477	781	0
Korea, South	310,935	146,962	267,847	348,825	229,850	384,835
Kuwait	3,110	818	4,460	6,868	11,813	9,721
Lebanon	852	819	450	771	80	0
Malaysia	140	240	2,746	291	1,533	1,422
Oman	981	484	765	770	2,338	0
Philippines	7,589	2,200	1,000	450	3,400	704
Qatar	1,656	1,988	1,110	810	2,893	1,075
Saudi Arabia	119,582	114,315	109,147	84,106	266,823	300,954
Singapore	855	2,760	4,393	4,751	14,263	2,998
Syria	4,711	0	0	0	480	900
Taiwan	4,622	3,494	7,668	9,552	5,375	6,595
Thailand	0	0	870	306	0	0
United Arab Emirates	8,098	2,288	4,838	26,943	3,755	3,263
Total	534,344	364,643	521,973	567,808	701,534	800,294
MIDDLE EAST	152,726	130,373	158,967	125,579	326,265	323,963
OCEANIA:						
AUSTRALIA	9,554	3,505	6,655	12,725	212	1,564
NEW ZEALAND	0	0	336	0	0	0
ALL OTHER	17,330	21,308	17,488	33,694	23,044	31,689
Total	26,884	24,813	24,479	46,419	23,256	33,253
AFRICA:						
ALL OTHER	7,981	15,910	40,698	8,080	568	900
Total	7,981	15,910	40,698	8,080	568	900
1618100--Red pepper						
CANADA	240,725	236,074	51,492	28,167	126,982	168,041
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	106,210	9,460	27,990	54,787	33,352	17,442
ALL OTHER	135,565	40,398	71,925	76,136	10,485	24,982
TOTAL	241,775	49,858	99,915	130,923	43,837	42,424
SOUTH AMERICA	16,820	8,823	22,691	68,942	21,956	6,753
TOTAL	258,595	58,681	122,606	199,865	65,793	49,177

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS

Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	 1988
1617800--Black and white pepper						
ASIA:						
Bahrain	4,022	1,421	3,197	518	0	0
Hong Kong	42,526	43,472	39,033	43,508	8,879	4,141
Indonesia	0	622	1,345	665	0	0
Iran	0	0	0	0	0	0
Israel	6,144	0	101,604	1,595	0	0
Japan	50,333	52,259	41,684	29,052	5,195	3,669
Jordan	0	176	0	0	0	165
Korea, South	254,917	157,118	239,776	177,078	30,492	0
Kuwait	7,310	23,641	2,448	0	0	0
Lebanon	411	0	0	0	0	0
Malaysia	1,476	2,512	535	0	0	0
Oman	0	0	0	0	0	0
Philippines	550	4,636	1,226	14,625	0	0
Qatar	1,987	1,264	465	1,729	581	0
Saudi Arabia	126,604	164,830	73,172	49,105	0	0
Singapore	4,552	3,130	2,423	5,876	0	0
Syria	0	0	0	0	0	0
Taiwan	13,339	21,900	10,693	10,542	0	2,753
Thailand	0	0	0	0	0	0
United Arab Emirates	1,193	4,777	0	0	0	0
Total	515,364	481,758	517,601	334,693	45,147	10,728
MIDDLE EAST	147,671	196,109	180,886	52,947	581	165
OCEANIA:						
AUSTRALIA	12,627	5,190	495	900	0	0
NEW ZEALAND	0	0	0	0	0	0
ALL OTHER	23,324	19,055	8,254	24,857	5,180	8,332
Total	35,951	24,245	8,749	25,757	5,180	8,332
AFRICA:						
ALL OTHER	110,831	146,653	164,282	97,805	12,814	0
Total	110,831	146,653	164,282	97,805	12,814	0
1618100--Red pepper						
CANADA	169,946	152,138	63,232	110,616	2,692	3,480
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	40,736	90,252	64,392	36,477	2,753	0
ALL OTHER	26,083	20,173	42,407	59,421	13,806	1,735
TOTAL	66,819	110,425	106,799	95,898	16,559	1,735
SOUTH AMERICA	27,000	35,823	47,063	23,549	0	1,183
TOTAL	93,819	146,248	153,862	119,447	16,559	2,918

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1618100--Red pepper						
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	800	392	1,520	4,660	3,360	2,400
Denmark	1,509	2,721	885	1,821	930	1,020
France	0	0	19,032	0	0	450
Germany, West	12,114	49,682	6,855	36,962	32,413	22,055
Greece	1,458	3,630	5,716	2,623	203	0
Ireland	400	0	0	0	0	0
Italy	0	0	0	490	0	1,797
Netherlands	15,075	4,205	6,408	0	2,497	0
United Kingdom	26,513	105,867	4,893	2,610	5,988	6,666
Total	57,869	166,497	45,309	49,166	45,391	34,388
OTHER W. EUROPE:						
Austria	0	0	0	0	1,920	0
Finland	0	5,480	0	9,240	1,080	5,520
Norway	0	0	0	0	0	0
Portugal	0	0	0	0	0	0
Spain	0	0	0	0	0	4,910
Sweden	44,737	74,548	103,168	154,813	196,631	124,271
Switzerland	0	0	0	0	0	674
ASIA:						
Bahrain	0	0	0	0	0	0
Hong Kong	5,109	361	0	187	615	1,217
India	0	0	0	0	156	0
Indonesia	0	0	600	470	1,772	5,935
Iran	6,630	0	0	0	0	0
Israel	34,765	3,200	0	4,450	5,385	2,200
Japan	7,938	787	5,176	5,867	25,419	203,024
Korea, South	3,450	6,600	4,166	0	15,901	19,780
Kuwait	400	0	540	0	1,166	288
Malaysia	201	0	0	0	0	0
Philippines	31,006	19,381	15,380	47,599	32,008	38,894
Saudi Arabia	7,980	5,226	7,156	4,749	306	30,594
Singapore	25,620	0	43	0	0	0
Taiwan	754	0	1,200	200	2,675	0
Thailand	0	0	930	1,603	1,619	2,400
United Arab Emirates	3,377	262	1,296	0	0	0
Total	127,230	35,817	36,447	65,125	87,024	304,332
MIDDLE EAST	53,152	8,688	8,992	9,199	6,859	33,082

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1618100--Red pepper						
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	19,371	1,840	4,960	9,143	1,820	0
Denmark	0	0	0	0	0	0
France	0	1,920	0	0	0	0
Germany, West	35,675	60,506	2,208	1,151	1,151	0
Greece	0	0	0	469	0	0
Ireland	0	0	0	0	0	0
Italy	0	0	0	0	0	0
Netherlands	4,319	41,667	0	0	0	0
United Kingdom	1,980	8,279	0	1,500	0	0
Total	61,345	114,212	7,168	12,263	2,971	0
OTHER W. EUROPE:						
Austria	0	0	0	0	0	0
Finland	25,200	22,320	15,840	0	0	0
Norway	0	0	0	2,160	0	0
Portugal	400	0	0	0	0	0
Spain	0	0	108,616	0	0	44,401
Sweden	80,000	85,376	33,511	26,880	15,360	0
Switzerland	668	3,937	0	0	0	0
ASIA:						
Bahrain	291	0	0	0	0	0
Hong Kong	26,991	18,779	30,905	13,371	0	0
India	0	0	0	0	0	0
Indonesia	0	0	0	0	0	0
Iran	0	0	0	0	0	0
Israel	1,100	1,090	5,560	1,360	0	0
Japan	2,565	7,660	40,993	0	0	23,925
Korea, South	1,696	0	43,016	1,584	0	0
Kuwait	994	0	0	0	0	0
Malaysia	0	0	0	0	0	0
Philippines	8,681	6,975	6,930	16,580	4,400	0
Saudi Arabia	0	35,388	66,815	11,006	0	0
Singapore	244	0	0	11,250	0	0
Taiwan	0	4,802	1,000	0	0	634
Thailand	0	2,000	0	0	0	0
United Arab Emirates	0	0	7,500	0	0	0
Total	42,562	76,694	202,719	55,151	4,400	24,559
MIDDLE EAST	2,385	36,478	79,875	12,366	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Schedule B commodity Partner — Time period:	1978	1979	1980	1981	1982	1983
1618100--Red pepper						
OCEANIA:						
AUSTRALIA	3,360	27,557	33,253	25,191	19,788	40,535
NEW ZEALAND	0	0	0	0	0	560
ALL OTHER	670	1,140	0	0	0	0
Total	4,030	28,697	33,253	25,191	19,788	41,095
AFRICA:						
ALL OTHER	5,100	0	1,955	1,000	17,500	0
Total	5,100	0	1,955	1,000	17,500	0
1621700--Spice and spice seeds, nspf						
CANADA	2,621,771	2,025,621	1,841,366	2,224,119	2,281,757	2,708,566
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	811,255	966,451	1,193,291	1,605,873	786,071	761,453
ALL OTHER	1,092,805	1,260,591	1,369,022	1,868,829	1,710,220	1,044,653
TOTAL	1,904,060	2,227,042	2,562,313	3,474,702	2,496,291	1,806,106
SOUTH AMERICA	901,065	1,407,025	976,995	1,114,587	1,091,990	443,219
TOTAL	2,805,125	3,634,067	3,539,308	4,589,289	3,588,281	2,249,325
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	5,957	6,389	4,044	1,532	238	23,370
Denmark	23,632	26,424	9,930	31,433	19,031	17,560
France	43,660	93,888	104,851	65,169	71,792	146,732
Germany, West	419,560	364,715	375,012	258,690	190,940	470,938
Greece	10,970	6,837	5,683	19,288	8,754	3,990
Ireland	4,224	6,514	2,693	45,213	9,820	6,512
Italy	25,229	17,361	14,159	22,557	3,212	13,883
Netherlands	57,688	32,280	107,442	67,769	60,006	73,043
United Kingdom	226,925	225,541	145,329	307,194	258,097	288,491
Total	817,845	779,949	769,143	818,845	621,890	1,044,519
OTHER W. EUROPE:						
Austria	3,325	3,170	0	3,802	2,700	5,658
Cyprus	0	0	1,479	4,310	477	0
Finland	21,945	20,185	25,010	25,290	43,826	37,576
Iceland	15,274	7,568	5,236	2,879	2,995	450
Malta and Gozo	0	0	0	7,244	4,512	0
Norway	47,541	38,414	53,469	38,955	40,133	20,509
Portugal	1,100	0	2,250	2,200	1,874	440
Spain	38,188	24,501	60,229	37,913	50,267	43,018
Sweden	204,657	206,313	176,001	122,544	92,843	137,976
Switzerland	70,716	90,360	15,192	54,654	94,285	37,411
Turkey	0	0	0	0	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period: Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1618100--Red pepper						
OCEANIA:						
AUSTRALIA	75,588	37,136	8,132	7,125	2,931	0
NEW ZEALAND	0	0	0	0	0	0
ALL OTHER	0	0	0	0	0	0
Total	75,588	37,136	8,132	7,125	2,931	0
AFRICA:						
ALL OTHER	0	0	0	0	0	0
Total	0	0	0	0	0	0
1621700--Spice and spice seeds, nspf						
CANADA	2,851,428	1,916,756	2,238,898	3,865,459	601,419	709,931
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	744,358	935,842	882,709	1,005,856	81,337	181,811
ALL OTHER	1,119,379	1,632,398	1,931,789	1,830,691	327,177	272,149
TOTAL	1,863,737	2,568,240	2,814,498	2,836,547	408,514	453,960
SOUTH AMERICA	760,882	655,970	396,235	551,075	105,399	66,864
TOTAL	2,624,619	3,224,210	3,210,733	3,387,622	513,913	520,824
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	135,393	26,257	3,004	0	0	0
Denmark	47,164	21,327	35,144	42,965	11,600	4,960
France	78,020	174,261	18,586	260,687	40,445	56,824
Germany, West	415,390	459,583	306,685	733,481	78,466	209,610
Greece	6,192	10,658	10,302	3,188	0	2,168
Ireland	9,770	19,715	10,703	7,210	0	2,620
Italy	42,081	8,181	1,530	981	0	300
Netherlands	110,682	73,885	130,056	461,304	24,255	34,500
United Kingdom	442,519	450,784	693,689	859,591	159,008	121,139
Total	1,287,211	1,244,651	1,209,699	2,369,407	313,774	432,121
OTHER W. EUROPE:						
Austria	32,737	3,531	425	0	0	2,357
Cyprus	0	2,410	1,006	1,367	1,367	0
Finland	4,120	9,898	32,812	76,063	5,671	4,500
Iceland	542	0	0	0	0	0
Malta and Gozo	0	0	0	0	0	0
Norway	23,921	25,057	18,392	15,192	5,765	0
Portugal	0	0	0	831	0	0
Spain	81,188	28,591	24,463	49,209	0	29,100
Sweden	215,596	192,743	192,867	368,093	57,615	83,150
Switzerland	44,517	78,475	30,010	69,157	0	0
Turkey	0	0	0	30,644	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS

Flow: Domestic exports

Type: First unit of quantity

Time period Schedule B commodity Partner	1978	1979	1980	1981
1621700--Spice and spice seeds, nspf				
ASIA:				
Bahrain	26,427 lb	19,289 lb	24,915 lb	19,445 lb
Brunei	1,146 lb	506 lb	667 lb	634 lb
China	0	0	0	0
Hong Kong	25,162 lb	34,577 lb	46,357 lb	59,322 lb
India	7,102 lb	0	0	0
Indonesia	18,247 lb	4,335 lb	8,262 lb	9,742 lb
Iran	89,086 lb	1,331 lb	0	0
Iraq	2,720 lb	0	0	0
Israel	145,180 lb	109,009 lb	51,445 lb	49,626 lb
Japan	197,463 lb	186,635 lb	153,626 lb	217,403 lb
Jordan	763 lb	2,472 lb	670 lb	19,683 lb
Korea, South	34,389 lb	49,605 lb	18,336 lb	21,107 lb
Kuwait	16,017 lb	46,444 lb	34,548 lb	71,353 lb
Lebanon	1,432 lb	1,152 lb	3,110 lb	6,932 lb
Malaysia	16,109 lb	10,601 lb	8,406 lb	8,549 lb
Oman	1,102 lb	3,350 lb	8,692 lb	920 lb
Pakistan	0	0	190 lb	0
Philippines	247,248 lb	135,638 lb	50,394 lb	159,494 lb
Qatar	31,245 lb	1,013 lb	13,685 lb	1,650 lb
Saudi Arabia	649,169 lb	706,253 lb	1,054,893 lb	963,845 lb
Singapore	16,830 lb	28,136 lb	28,671 lb	44,566 lb
Syria	1,196 lb	850 lb	3,229 lb	0
Taiwan	34,693 lb	30,629 lb	7,037 lb	29,869 lb
Thailand	11,121 lb	8,120 lb	13,125 lb	49,268 lb
United Arab Emirates	44,025 lb	20,264 lb	284,272 lb	21,298 lb
Yemen (Sana)	6,707 lb	0	0	0
Total	1,624,579 lb	1,400,209 lb	1,814,530 lb	1,754,706 lb
MIDDLE EAST	1,015,069 lb	911,427 lb	1,479,459 lb	1,154,752 lb
OCEANIA:				
AUSTRALIA	90,298 lb	86,400 lb	112,456 lb	58,989 lb
NEW ZEALAND	3,418 lb	7,032 lb	10,655 lb	11,408 lb
ALL OTHER	18,197 lb	28,803 lb	15,404 lb	23,613 lb
Total	111,913 lb	122,235 lb	138,515 lb	94,010 lb
AFRICA:				
ALL OTHER	139,546 lb	274,468 lb	105,871 lb	190,068 lb
Total	139,546 lb	274,468 lb	105,871 lb	190,068 lb
1650700--Orange juice not concentrate				
CANADA	4,991,894 gal	3,860,364 gal	3,412,144 gal	2,058,098 gal

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity

Time period: Schedule B commodity Partner	1982	1983	1984	1985
1621700--Spice and spice seeds, nspf				
ASIA:				
Bahrain	25,644 lb	7,633 lb	23,639 lb	3,184 lb
Brunei	0	741 lb	105 lb	0
China	0	0	0	0
Hong Kong	47,315 lb	144,010 lb	157,772 lb	112,112 lb
India	1,305 lb	120 lb	0	27,169 lb
Indonesia	38,116 lb	10,535 lb	14,589 lb	19,555 lb
Iran	0	0	0	0
Iraq	0	0	0	0
Israel	43,947 lb	72,815 lb	37,903 lb	56,523 lb
Japan	274,354 lb	290,287 lb	451,314 lb	367,358 lb
Jordan	2,122 lb	21,319 lb	13,400 lb	322 lb
Korea, South	44,061 lb	35,323 lb	64,319 lb	111,182 lb
Kuwait	148,134 lb	125,692 lb	21,810 lb	26,763 lb
Lebanon	1,391 lb	0	20,492 lb	0
Malaysia	8,630 lb	6,817 lb	20,390 lb	19,163 lb
Oman	112,831 lb	63,006 lb	66,308 lb	0
Pakistan	0	0	0	0
Philippines	95,018 lb	122,387 lb	100,303 lb	134,015 lb
Qatar	5,886 lb	1,707 lb	564 lb	320 lb
Saudi Arabia	741,124 lb	845,054 lb	423,163 lb	350,859 lb
Singapore	40,160 lb	26,941 lb	59,123 lb	20,946 lb
Syria	4,316 lb	0	0	0
Taiwan	41,547 lb	139,881 lb	86,768 lb	147,879 lb
Thailand	30,356 lb	29,429 lb	23,992 lb	20,045 lb
United Arab Emirates	64,111 lb	18,848 lb	5,370 lb	0
Yemen (Sana)	0	0	0	0
Total	1,770,368 lb	1,962,545 lb	1,591,324 lb	1,417,395 lb
MIDDLE EAST	1,149,506 lb	1,156,074 lb	612,649 lb	437,971 lb
OCEANIA:				
AUSTRALIA	128,430 lb	191,571 lb	241,156 lb	188,677 lb
NEW ZEALAND	14,028 lb	31,639 lb	24,180 lb	2,771 lb
ALL OTHER	18,020 lb	9,359 lb	5,468 lb	3,715 lb
Total	160,478 lb	232,569 lb	270,804 lb	195,163 lb
AFRICA:				
ALL OTHER	308,276 lb	127,372 lb	99,393 lb	81,615 lb
Total	308,276 lb	127,372 lb	99,393 lb	81,615 lb
1650700--Orange juice not concentrate				
CANADA	1,340,258 gal	943,122 gal	801,789 gal	1,083,591 gal

Continued--

Appendix table 10: U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS

Flow: Domestic exports
Type: First unit of quantity

Time period Schedule B commodity Partner	1986	1987	January-February 1987	January-February 1988
1621700--Spice and spice seeds, nspf				
ASIA:				
Bahrain	50,677 lb	2,226 lb	0	829 lb
Brunei	0	0	0	0
China	0	35,380 lb	0	0
Hong Kong	123,312 lb	185,600 lb	22,298 lb	26,902 lb
India	212,005 lb	24,808 lb	0	0
Indonesia	33,108 lb	8,305 lb	0	5,085 lb
Iran	0	0	0	0
Iraq	0	0	0	0
Israel	101,935 lb	27,501 lb	0	6,440 lb
Japan	400,374 lb	788,266 lb	78,805 lb	26,999 lb
Jordan	26,308 lb	174 lb	0	1,944 lb
Korea, South	121,649 lb	199,975 lb	20,036 lb	2,000 lb
Kuwait	21,781 lb	123,064 lb	0	2,623 lb
Lebanon	0	0	0	0
Malaysia	6,586 lb	707 lb	707 lb	0
Oman	16,204 lb	0	0	0
Pakistan	0	0	0	0
Philippines	50,639 lb	73,721 lb	10,850 lb	5,479 lb
Qatar	0	855 lb	672 lb	0
Saudi Arabia	312,149 lb	153,446 lb	0	135,486 lb
Singapore	72,934 lb	91,891 lb	11,314 lb	32,040 lb
Syria	0	0	0	0
Taiwan	151,035 lb	256,165 lb	1,370 lb	81,086 lb
Thailand	28,798 lb	30,613 lb	0	0
United Arab Emirates	33,060 lb	1,451 lb	1,451 lb	7,574 lb
Yemen (Sana)	0	0	0	0
Total	1,762,554 lb	2,004,148 lb	147,503 lb	334,487 lb
MIDDLE EAST	562,114 lb	308,717 lb	2,123 lb	154,896 lb
OCEANIA:				
AUSTRALIA	264,317 lb	190,449 lb	17,050 lb	50,553 lb
NEW ZEALAND	14,650 lb	45,321 lb	0	7,494 lb
ALL OTHER	29,974 lb	7,228 lb	0	0
Total	308,941 lb	242,998 lb	17,050 lb	58,047 lb
AFRICA:				
ALL OTHER	114,823 lb	334,767 lb	2,161 lb	7,737 lb
Total	114,823 lb	334,767 lb	2,161 lb	7,737 lb
1650700--Orange juice not concentrate				
CANADA	613,932 gal	529,958 gal	143,402 gal	35,723 gal

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Gallons)

Time period: Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1650700--Orange juice not concentrate:						
CENTRAL AMERICA:						
MEXICO	121,095	209,324	270,316	355,569	104,886	140,629
ALL OTHER	437,961	598,891	570,614	638,444	698,303	610,851
TOTAL	559,056	808,215	840,930	994,013	803,189	751,480
SOUTH AMERICA	9,851	11,170	51,030	53,908	132,423	93,479
TOTAL	568,907	819,385	891,960	1,047,921	935,612	844,959
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	149,969	63,597	111,570	42,226	12,900	1,936
Denmark	5,512	0	2,981	3,766	0	0
France	1,936,087	2,682,844	2,713,081	3,003,814	2,053,573	1,515,526
Germany, West	213,630	46,101	16,652	13,888	20,323	105,464
Greece	306	0	345	1,292	1,960	0
Ireland	0	0	0	0	0	0
Italy	0	3,043	4,845	1,799	5,392	3,360
Netherlands	64,919	77,878	69,079	26,528	3,450	2,673
United Kingdom	66,007	16,609	83,270	100,576	48,839	104,844
Total	2,436,430	2,890,072	3,001,823	3,193,889	2,146,437	1,733,803
OTHER W. EUROPE:						
Austria	0	0	11,273	3,338	0	0
Cyprus	0	0	1,560	2,700	0	0
Finland	0	0	450	1,350	0	0
Iceland	3,565	630	1,863	10,123	5,156	770
Malta and Gozo	740	0	0	0	0	0
Norway	16,590	15,449	22,246	13,272	13,461	4,063
Portugal	1,022	0	0	0	0	0
Spain	7,935	0	0	0	0	0
Sweden	19,396	313	2,365	0	0	0
Switzerland	3,605	94,917	190,628	146,381	176,880	99,481
ASIA:						
Bahrain	36,059	49,150	117,695	151,663	76,216	66,696
Brunei	0	660	1,200	0	0	10,284
China	450	0	0	0	0	0
Hong Kong	81,135	101,598	149,965	120,669	232,638	227,989
India	1,276	325	953	3,825	0	0
Indonesia	27,724	41,818	59,490	54,599	210,235	180,032
Iran	5,299	321	0	0	0	0
Israel	221	13,200	49,388	0	1,034	0
Japan	146,334	208,784	164,876	199,375	194,957	178,189
Jordan	28,798	3,016	47,007	13,720	0	0
Korea, South	165,325	229,749	285,162	282,950	842,219	394,747

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Gallons)

Schedule B commodity Partner / Time period	1984	1985	1986	1987	January-February	
					1987	1988
1650700--Orange juice not concentrate						
CENTRAL AMERICA:						
MEXICO	24,198	550	11,947	0	0	0
ALL OTHER	673,686	319,108	323,088	381,802	34,485	55,337
TOTAL	697,884	319,658	335,035	381,802	34,485	55,337
SOUTH AMERICA	33,837	15,101	13,053	12,697	0	0
TOTAL	731,721	334,759	348,088	394,499	34,485	55,337
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	11,321	0	0	29,263	0	0
Denmark	11,278	7,839	7,008	5,390	2,906	0
France	1,471,524	927,862	1,004,628	1,408,207	283,398	648,516
Germany, West	10,697	0	7,296	0	0	0
Greece	0	0	0	450	0	0
Ireland	3,494	0	107	0	0	0
Italy	0	0	2,489	29,628	0	0
Netherlands	13,982	2,418	0	40,289	0	0
United Kingdom	47,614	17,100	6,759	2,938	0	0
Total	1,569,910	955,219	1,028,287	1,516,165	286,304	648,516
OTHER W. EUROPE:						
Austria	0	0	0	0	0	0
Cyprus	0	0	0	0	0	0
Finland	0	0	0	0	0	0
Iceland	0	0	0	0	0	0
Malta and Gozo	0	0	0	0	0	0
Norway	4,761	4,905	1,684	8,566	1,851	0
Portugal	863	0	870	828	0	0
Spain	0	0	0	0	0	0
Sweden	42,340	2,443	4,069	4,072	0	3,131
Switzerland	11,005	1,725	4,283	0	0	0
ASIA:						
Bahrain	54,208	34,078	80,755	83,200	900	23,691
Brunei	3,709	0	4,162	3,687	0	0
China	0	0	0	22,251	0	0
Hong Kong	91,337	87,997	97,155	220,371	11,175	255,033
India	0	0	0	0	0	0
Indonesia	120,751	201,607	43,489	4,658	0	0
Iran	0	0	0	0	0	0
Israel	0	0	21,544	21,996	21,996	0
Japan	220,435	255,567	213,331	288,551	42,163	200,123
Jordan	0	0	23,454	64,706	0	0
Korea, South	137,192	103,099	66,926	10,564	6,309	59,174

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Gallons)

Time period / Schedule B commodity / Partner	1978	1979	1980	1981	1982	1983
1650700--Orange juice not concentrate						
Kuwait	21,366	76,038	117,855	92,443	74,227	90,667
Lebanon	713	0	3,836	3,755	450	2,601
Malaysia	57,309	21,208	54,996	33,203	46,466	155,027
Nepal	0	0	898	0	0	0
Oman	9,355	17,821	63,978	76,177	99,791	113,473
Pakistan	0	405	405	0	0	0
Philippines	3,795	5,735	6,671	4,418	46,007	5,670
Qatar	7,731	1,505	29,629	51,187	41,523	19,838
Saudi Arabia	250,068	404,382	677,399	1,039,759	815,527	847,696
Singapore	37,075	79,657	52,094	154,173	127,036	73,512
Taiwan	2,385	62,311	54,009	4,611	1,813	5,302
Thailand	1,872	16,211	1,981	8,084	4,370	1,637
United Arab Emirates	181,491	53,498	505,092	228,502	254,493	313,531
Total	1,065,781	1,387,392	2,444,579	2,523,113	3,069,002	2,686,891
MIDDLE EAST	541,101	618,931	1,611,879	1,657,206	1,363,261	1,454,502
OCEANIA:						
ALL OTHER	59,820	30,134	35,766	46,659	41,438	36,018
Total	59,820	30,134	35,766	46,659	41,438	36,018
AFRICA:						
ANGOLA	0	0	0	0	0	0
ALL OTHER	27,038	164,444	13,560	32,751	54,452	8,982
Total	27,038	164,444	13,560	32,751	54,452	8,982
1651700--Grape juice not concentrated						
CANADA	815,496	1,151,373	1,866,345	1,161,100	2,514,777	2,338,620
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	11,847	16,298	15,103	10,617	4,605	0
ALL OTHER	191,495	454,134	449,415	237,133	134,919	159,978
TOTAL	203,342	470,432	464,518	247,750	139,524	159,978
SOUTH AMERICA	534	24,647	60,841	77,462	22,251	4,022
TOTAL	203,876	495,079	525,359	325,212	161,775	164,000
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	15,951	10,697	22,432	4,949	5,111	3,736
Denmark	1,032	219	480	0	844	480
France	2,124	1,661	4,983	1,580	1,280	0
Germany, West	12,000	0	4,959	398	3,046	0
Italy	0	0	0	0	0	4,093
Netherlands	0	0	3,492	940	0	7,012
United Kingdom	10,537	13,131	41,307	12,138	8,124	29,676
Total	41,644	25,708	77,653	20,005	18,405	44,997

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Gallons)

Time period Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1650700--Orange juice not concentrate						
Kuwait	40,934	23,787	51,430	61,868	1,036	15,706
Lebanon	0	543	0	4,071	0	0
Malaysia	24,130	23,689	16,121	0	0	771
Nepal	0	0	0	0	0	0
Oman	93,997	58,551	95,499	171,679	50,427	1,294
Pakistan	0	0	15,847	3,234	0	6,468
Philippines	7,260	5,590	2,641	5,015	0	0
Qatar	24,298	32,869	23,325	33,770	0	29,749
Saudi Arabia	596,304	2,780,105	355,013	474,742	66,151	19,634
Singapore	20,358	16,821	54,716	102,596	12,204	123,345
Taiwan	991	3,560	86,668	78,339	0	44,698
Thailand	3,915	0	0	0	0	0
United Arab Emirates	477,455	303,818	195,020	338,061	99,896	31,358
Total	1,917,274	3,931,681	1,447,096	1,993,359	312,257	811,044
MIDDLE EAST	1,287,196	3,233,751	846,040	1,254,093	240,406	121,432
OCEANIA:						
ALL OTHER	28,655	22,896	21,238	31,324	2,600	9,092
Total	28,655	22,896	21,238	31,324	2,600	9,092
AFRICA:						
ANGOLA	4,100	0	0	18,765	0	0
ALL OTHER	13,273	5,182	11,542	7,021	4,600	0
Total	17,373	5,182	11,542	25,786	4,600	0
1651700--Grape juice not concentrated						
CANADA	1,325,068	854,326	1,975,693	343,399	32,150	47,815
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	3,205	0	1,820	0	0	0
ALL OTHER	173,993	49,879	181,484	133,037	55,992	2,448
TOTAL	177,198	49,879	183,304	133,037	55,992	2,448
SOUTH AMERICA	0	7,216	2,053	12,410	0	2,239
TOTAL	177,198	57,095	185,357	145,447	55,992	4,687
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	7,584	26,920	3,728	6,637	5,028	0
Denmark	720	0	0	0	0	0
France	788	0	3,988	14,090	14,090	0
Germany, West	0	0	0	0	0	0
Italy	10,044	0	0	0	0	0
Netherlands	0	0	0	0	0	0
United Kingdom	34,565	38,228	41,479	41,552	18,751	6,299
Total	53,701	65,148	49,195	62,279	37,869	6,299

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Gallons)

Time period: Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1651700--Grape juice not concentrated:						
OTHER W. EUROPE:						
Austria	0	0	323	397	0	0
Norway	450	0	959	0	0	0
Spain	0	2,250	0	0	0	0
Sweden	1,800	2,200	1,918	3,418	1,606	0
Switzerland	0	0	524	1,438	1,860	0
ASIA:						
Bahrain	1,238	0	0	515	1,690	647
Brunei	0	0	0	0	0	211
Hong Kong	40,327	65,253	123,966	111,600	268,006	169,955
India	0	0	0	500	0	0
Indonesia	699	1,200	400	1,300	1,721	400
Iran	1,023	0	0	0	0	0
Iraq	540	0	0	0	0	0
Israel	600	0	0	1,084	2,093	0
Japan	17,552	5,142	1,177	13,948	63,544	168,326
Jordan	0	0	820	3,377	0	0
Korea, South	687	365	0	0	828	36,278
Kuwait	4,162	0	8,618	5,239	4,216	0
Lebanon	2,425	0	800	400	0	875
Malaysia	1,198	1,850	0	225	300	0
Oman	0	0	3,234	1,564	0	1,104
Pakistan	210	0	0	0	0	0
Philippines	0	0	1,143	11,141	126,521	58,691
Qatar	0	1,007	0	323	0	0
Saudi Arabia	131,593	42,529	110,064	129,330	75,921	42,115
Singapore	14,417	9,328	12,715	22,782	27,968	12,163
Taiwan	976	6,013	26,295	37,907	101,234	72,594
Thailand	360	0	0	0	0	0
United Arab Emirates	3,938	2,580	9,575	27,931	10,655	40,004
Total	221,945	135,267	298,807	369,166	684,697	603,363
MIDDLE EAST	145,519	46,116	133,111	169,763	94,575	84,745
OCEANIA:						
AUSTRALIA	2,544	2,185	7,080	21,469	0	0
NEW ZEALAND	0	969	0	0	0	0
ALL OTHER	480	1,639	315	970	0	0
Total	3,024	4,793	7,395	22,439	0	0
AFRICA:						
ALL OTHER	15,846	11,935	5,748	2,850	15,820	7,887
Total	15,846	11,935	5,748	2,850	15,820	7,887

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Gallons)

Time period: Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1651700--Grape juice not concentrated:						
OTHER W. EUROPE:						
Austria	1,050	0	0	0	0	0
Norway	0	0	0	0	0	0
Spain	0	0	0	0	0	0
Sweden	0	4,581	0	0	0	0
Switzerland	4,115	0	0	920	920	1,717
ASIA:						
Bahrain	0	0	0	0	0	0
Brunei	0	0	0	0	0	0
Hong Kong	37,245	135,416	133,468	289,739	0	20,952
India	0	0	0	0	0	0
Indonesia	1,009	2,760	1,026	0	0	0
Iran	0	0	0	0	0	0
Iraq	0	0	0	0	0	0
Israel	0	0	0	6,000	6,000	0
Japan	244,865	24,570	1,768	46,590	0	38,238
Jordan	0	0	0	0	0	0
Korea, South	17,037	56,667	1,538	0	0	0
Kuwait	3,062	450	0	0	0	0
Lebanon	0	0	0	0	0	0
Malaysia	417	0	2,434	880	0	0
Oman	0	0	0	0	0	0
Pakistan	0	453	2,349	0	0	690
Philippines	14,288	56,532	46,862	84,530	39,910	9,321
Qatar	0	0	0	0	0	0
Saudi Arabia	48,908	151,633	34,972	38,018	0	1,738
Singapore	14,013	3,525	14,080	9,741	0	0
Taiwan	72,141	24,314	7,791	43,115	0	2,737
Thailand	0	0	0	0	0	0
United Arab Emirates	25,818	6,376	324	0	0	0
Total	478,803	462,696	246,612	518,613	45,910	73,676
MIDDLE EAST	77,788	158,459	35,296	44,018	6,000	1,738
OCEANIA:						
AUSTRALIA	0	0	1,700	4,797	1,300	25,390
NEW ZEALAND	0	0	0	0	0	0
ALL OTHER	1,080	4,472	6,073	0	0	0
Total	1,080	4,472	7,773	4,797	1,300	25,390
AFRICA:						
ALL OTHER	9,462	5,846	0	0	0	0
Total	9,462	5,846	0	0	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Single strength gallons)

Time period: Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1653320--Orange juice conc fz und32oz						
CANADA	21,897,028	24,782,446	28,372,937	28,908,836	23,918,314	23,857,088
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	1,982	0	383	16,780	0	0
ALL OTHER	256,152	291,721	385,405	664,150	420,974	307,536
TOTAL	258,134	291,721	385,788	680,930	420,974	307,536
SOUTH AMERICA	0	0	1,435	15,814	42,576	50,003
TOTAL	258,134	291,721	387,223	696,744	463,550	357,539
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	41,330	85,806	25,649	51,821	301,071	45,692
Denmark	40,068	15,048	30,096	14,187	0	0
France	330,863	563,975	670,908	501,170	303,530	315,000
Germany, West	116,467	296,255	88,794	318,787	126,103	73,581
Greece	0	0	0	0	0	15,973
Netherlands	401,409	266,984	268,045	137,982	113,670	74,525
United Kingdom	1,090,070	1,209,218	1,211,392	1,001,838	523,260	586,262
Total	2,020,207	2,437,286	2,294,884	2,025,785	1,367,634	1,111,033
OTHER W. EUROPE:						
Austria	47,587	47,925	89,100	81,090	69,300	56,700
Iceland	18,500	26,716	336,761	24,855	64,475	98,276
Norway	103,687	158,118	171,540	257,348	211,126	65,226
Spain	240	0	0	0	0	0
Sweden	2,188,492	2,406,664	2,379,600	1,750,328	1,522,371	730,415
Switzerland	3,767	0	21,578	39,252	13,829	7,425
ASIA:						
Bahrain	773	1,138	4,684	10,800	1,125	0
Hong Kong	50,577	41,841	97,710	74,085	62,253	46,006
Indonesia	3,703	817	1,292	4,388	42,996	29,199
Iran	60,274	37,800	0	0	0	0
Israel	480	66,516	0	0	0	253
Japan	0	0	0	0	396	51,188
Korea, South	3,231	15,053	3,167	5,624	18,304	26,596
Kuwait	556	641	3,763	0	5,824	0
Malaysia	4,805	0	1,641	2,782	11,411	666
Oman	0	0	0	0	0	0
Pakistan	0	0	0	803	0	0
Philippines	0	0	43,548	6,480	4,730	3,624
Qatar	1,561	2,898	882	840	1,485	0
Saudi Arabia	130,071	100,642	138,681	101,077	78,131	113,633
Singapore	18,803	14,626	15,300	23,547	20,593	26,534

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Single strength gallons)

Time period: Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	 1988
1653320--Orange juice conc fz und32oz						
CANADA	21,271,189	16,038,313	10,277,863	12,147,905	2,833,614	2,114,049
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	0	0	0	0	0	0
ALL OTHER	376,085	403,270	270,601	189,109	48,748	24,986
TOTAL	376,085	403,270	270,601	189,109	48,748	24,986
SOUTH AMERICA	9,315	27,957	17,271	44,621	9,386	1,569
TOTAL	385,400	431,227	287,872	233,730	58,134	26,555
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	0	0	0	15,226	0	0
Denmark	0	0	0	0	0	0
France	162,135	79,380	18,725	18,480	0	0
Germany, West	78,369	43,381	15,930	24,105	0	0
Greece	0	0	0	0	0	0
Netherlands	72,204	30,510	34,484	0	0	97,771
United Kingdom	341,409	14,535	15,760	73,353	0	0
Total	654,117	167,806	84,899	131,164	0	97,771
OTHER W. EUROPE:						
Austria	44,190	39,960	43,290	39,465	0	0
Iceland	0	3,929	0	0	0	0
Norway	80,298	72,630	103,566	64,504	0	16,929
Spain	0	0	0	0	0	0
Sweden	666,209	441,312	603,925	437,476	45,765	99,018
Switzerland	12,672	7,628	9,000	9,000	0	0
ASIA:						
Bahrain	2,832	2,531	1,350	1,350	0	0
Hong Kong	16,927	8,198	34,633	5,818	0	0
Indonesia	12,309	8,645	5,040	34,250	0	0
Iran	0	0	0	0	0	0
Israel	0	0	55,917	0	0	0
Japan	0	168,810	69,782	104,785	0	88,576
Korea, South	68,208	28,213	308,940	41,065	20,587	4,118
Kuwait	0	15,659	0	0	0	0
Malaysia	4,945	0	0	14,624	0	0
Oman	0	2,735	0	0	0	0
Pakistan	0	0	0	0	0	0
Philippines	0	0	2,039	4,665	0	0
Qatar	13,265	0	0	0	0	0
Saudi Arabia	136,109	1,375,780	416,627	30,765	0	133,951
Singapore	22,700	79,259	112,108	24,495	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Single strength gallons)

Schedule B commodity Partner / Time period	1978	1979	1980	1981	1982	1983
1653320--Orange juice conc fz und32oz						
Taiwan	0	0	49,209	0	76,560	62,700
Thailand	0	625	0	0	1,229	1,669
United Arab Emirates	1,050	1,112	18,002	2,255	0	804
Total	275,884	283,709	377,879	232,681	325,037	362,872
MIDDLE EAST	194,765	210,747	166,012	114,972	86,565	114,690
OCEANIA:						
AUSTRALIA	600	294	0	0	0	0
NEW ZEALAND	0	0	0	904	0	43,059
ALL OTHER	42,992	72,924	235,872	143,596	104,929	63,696
Total	43,592	73,218	235,872	144,500	104,929	106,755
AFRICA:						
ALL OTHER	648	0	1,000	9,078	1,694	203
Total	648	0	1,000	9,078	1,694	203
1653340--Orange juce conc fz 32-128oz						
CANADA	1,901,908	2,041,170	2,271,696	2,699,413	2,198,764	2,032,825
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	0	12,576	0	342	1,077	0
ALL OTHER	175,326	240,055	498,846	855,888	813,341	905,765
TOTAL	175,336	252,631	498,846	856,230	814,418	905,765
SOUTH AMERICA	0	180	0	0	5,825	809
TOTAL	175,336	252,811	498,846	856,230	820,243	906,574
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	0
Belgium and Luxembourg	81,862	178,263	282,029	285,540	263,100	298,228
Denmark	20,570	3,675	0	0	0	0
France	69,096	109,980	151,103	261,353	482,832	495,564
Germany, West	534,277	751,576	907,695	718,521	696,845	705,506
Greece	0	9,600	9,241	2,553	1,765	0
Ireland	0	9,996	0	0	0	0
Italy	0	0	0	0	0	0
Netherlands	224,839	279,473	508,608	667,948	378,577	353,642
United Kingdom	68,780	276,642	513,893	645,754	520,570	487,331
Total	999,424	1,619,205	2,372,569	2,581,669	2,343,689	2,340,271
OTHER W. EUROPE:						
Austria	80,712	169,320	215,808	350,568	260,152	283,947
Iceland	5,255	0	84,280	356,973	8,824	0
Norway	32,496	127,905	182,834	138,324	125,424	183,033
Sweden	112,195	215,162	238,690	324,910	251,598	252,424
Switzerland	91,846	282,800	548,969	683,128	680,998	770,608

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Single strength gallons)

Schedule B commodity Partner (Time period)	1984	1985	1986	1987	January-February 1987	January-February 1988
1653320--Orange juice conc fz und32oz						
Taiwan	0	25,815	69,847	146,586	23,612	54,435
Thailand	0	0	0	0	0	0
United Arab Emirates	0	0	0	3,672	0	0
Total	277,295	1,715,645	1,076,283	412,075	44,199	281,080
MIDDLE EAST	152,206	1,396,705	473,894	35,787	0	133,951
OCEANIA:						
AUSTRALIA	22,606	0	0	0	0	0
NEW ZEALAND	0	0	0	0	0	0
ALL OTHER	103,837	53,528	81,440	86,214	21,280	14,280
Total	126,443	53,528	81,440	86,214	21,280	14,280
AFRICA:						
ALL OTHER	0	4,564	1,085	0	0	0
Total	0	4,564	1,085	0	0	0
1653340--Orange juce conc fz 32-128oz						
CANADA	1,974,776	2,003,668	1,675,866	2,198,008	324,468	221,407
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	0	0	0	0	0	0
ALL OTHER	637,392	764,172	668,204	436,022	145,998	11,520
TOTAL	637,392	764,172	668,204	436,022	145,998	11,520
SOUTH AMERICA	0	0	565	1,128	0	0
TOTAL	637,392	764,172	668,769	437,150	145,998	11,520
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	16,680
Belgium and Luxembourg	157,866	136,305	119,478	179,520	16,680	0
Denmark	0	0	0	0	0	0
France	441,631	350,033	425,695	463,256	57,972	20,017
Germany, West	694,867	688,642	762,312	609,490	105,728	109,852
Greece	0	0	0	0	0	0
Ireland	0	0	0	0	0	0
Italy	0	0	1,224	0	0	0
Netherlands	147,963	132,869	306,045	318,733	18,144	0
United Kingdom	506,209	627,531	589,902	735,255	109,569	40,248
Total	1,948,536	1,935,380	2,204,656	2,306,254	308,093	186,797
OTHER W. EUROPE:						
Austria	221,940	294,660	267,677	140,280	5,940	46,740
Iceland	0	0	0	12,024	0	0
Norway	132,720	165,906	155,188	187,530	31,920	54,821
Sweden	272,471	284,768	263,680	345,464	80,516	17,484
Switzerland	757,206	757,675	684,276	719,870	94,236	57,843

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Single strength gallons)

Time period Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1653340--Orange juce conc fz 32-128oz						
ASIA:						
Bahrain	146	0	906	0	0	0
Hong Kong	45,785	64,960	101,389	115,200	162,441	184,778
India	0	0	0	0	0	0
Indonesia	0	0	0	2,060	589	0
Iran	47,902	2,000	0	0	0	0
Israel	0	0	0	0	12,142	86,399
Japan	81	0	0	8,400	8,588	2,197
Jordan	0	0	2,199	0	0	0
Korea, South	16,695	15,389	61,073	90,618	69,511	31,857
Kuwait	0	1,449	14,197	5,472	12,034	0
Malaysia	466	205	0	42,773	7,200	7,540
Oman	0	3,406	4,073	15,750	0	1,549
Philippines	157,753	162,397	193,536	91,048	399,579	458,151
Qatar	0	0	0	0	0	0
Saudi Arabia	80,158	61,496	124,889	107,777	225,984	12,900
Singapore	4,035	720	7,651	20,400	3,600	0
Taiwan	0	0	0	0	0	0
Thailand	0	2,640	0	0	0	1,176
United Arab Emirates	0	1,126	11,550	0	26,070	3,200
Total	353,021	315,788	521,463	499,498	927,738	789,747
MIDDLE EAST	128,206	69,477	157,814	128,999	276,230	104,048
OCEANIA:						
AUSTRALIA	0	0	31,626	1,200	134,513	0
NEW ZEALAND	0	0	0	193,563	376,821	229,230
ALL OTHER	59,411	90,724	45,216	16,368	91,640	162,376
Total	59,411	90,724	76,842	211,131	602,974	391,606
AFRICA:						
ALL OTHER	3,585	0	0	23,500	0	0
Total	3,585	0	0	23,500	0	0
1653360--Orange juice conc fz ov 1gal						
CANADA	627,587	872,149	3,098,283	3,684,269	2,434,329	8,183,170
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	144,267	53,491	92,519	499,545	219,500	652,632
ALL OTHER	184,726	290,629	1,788,897	1,097,146	833,248	1,567,949
TOTAL	328,993	344,120	1,881,416	1,596,691	1,052,748	2,220,581
SOUTH AMERICA	29,212	58,703	43,728	209,783	148,897	58,825
TOTAL	358,205	402,823	1,925,144	1,806,474	1,201,645	2,279,406

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Single strength gallons)

Schedule B commodity Partner / Time period	1984	1985	1986	1987	January-February	
					1987	1988
1653340--Orange juce conc fz 32-128oz						
ASIA:						
Bahrain	0	0	0	0	0	0
Hong Kong	169,362	284,711	211,689	348,002	90,316	35,189
India	0	0	0	1,000	0	0
Indonesia	2,676	0	0	0	0	0
Iran	0	0	0	0	0	0
Israel	485,420	0	73,013	0	0	0
Japan	5,809	5,427	118,714	170,499	0	12,420
Jordan	0	0	0	0	0	0
Korea, South	52,056	67,588	84,522	32,592	10,000	4,291
Kuwait	1,412	0	3,489	5,091	0	7,636
Malaysia	1,200	8,974	0	0	0	0
Oman	2,995	2,364	0	0	0	4,000
Philippines	170,715	23,941	0	0	0	0
Qatar	0	0	0	1,139	1,139	0
Saudi Arabia	0	27,840	103,914	113,795	73,095	0
Singapore	0	9,348	28,956	57,730	0	9,844
Taiwan	49,823	4,563	0	0	0	0
Thailand	2,100	2,100	0	0	0	0
United Arab Emirates	473	5,831	0	0	0	0
Total	944,041	442,687	624,297	729,848	174,550	73,380
MIDDLE EAST	490,300	36,035	180,416	120,025	74,234	11,636
OCEANIA:						
AUSTRALIA	0	0	0	0	0	0
NEW ZEALAND	255,162	43,059	4,142	1,318	1,318	1,816
ALL OTHER	55,397	19,633	56,426	18,389	1,647	0
Total	310,559	62,692	60,568	19,707	2,965	1,816
AFRICA:						
ALL OTHER	3,752	7,207	0	0	0	0
Total	3,752	7,207	0	0	0	0
1653360--Orange juice conc fz ov 1gal						
CANADA	5,884,876	4,096,772	3,126,016	6,903,349	884,344	1,407,778
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	4,309,293	2,488,568	9,506	71,000	0	1,680
ALL OTHER	957,380	1,119,098	1,145,096	1,050,106	69,590	85,803
TOTAL	5,266,673	3,607,666	1,154,602	1,121,106	69,590	87,483
SOUTH AMERICA	69,573	107,090	136,490	51,712	0	15,259
TOTAL	5,336,246	3,714,756	1,291,092	1,172,818	69,590	102,742

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Single strength gallons)

Time period: Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1653360--Orange juice conc fz ov 1gal						
EC-10:						
Belgium and Luxembourg	17,717	569	15,870	940,600	1,296,650	588,670
Denmark	62,233	0	101,536	466,273	0	292,772
France	780	17,741	945,033	1,669,920	875,931	777,796
Germany, West	1,429,548	674,151	4,243,618	4,373,766	3,424,108	2,765,352
Greece	0	0	0	0	30,587	123,386
Ireland	43,054	5,133	0	87,360	276,256	12,320
Netherlands	939,861	1,935,063	3,975,028	8,714,513	4,400,944	7,479,410
United Kingdom	28,277	38,168	293,864	376,288	317,035	1,339,100
Total	2,521,470	2,670,825	9,574,949	16,628,720	10,621,511	13,378,806
OTHER W. EUROPE:						
Austria	0	0	0	0	0	0
Finland	18,720	0	132,720	194,478	59,054	24,480
Iceland	30,922	85,619	50,097	113,845	489,085	369,031
Norway	184,544	39,176	1,301,963	1,251,169	1,250,466	1,253,425
Sweden	1,081,171	803,026	1,692,500	1,050,623	955,180	678,825
Switzerland	45,656	30,644	57,807	90,440	76,364	232,174
ASIA:						
Bahrain	0	0	0	0	0	24,529
China	0	0	0	76,560	20,904	48,798
Hong Kong	42,722	160,050	388,920	277,116	351,703	606,540
India	0	0	0	7,713	0	0
Indonesia	1,092	55,244	119,415	88,822	110,410	89,339
Iraq	0	0	0	0	0	0
Israel	397,403	144,750	394,078	694,431	4,050	1,071,952
Japan	190,613	507,126	346,336	307,522	320,958	647,994
Korea, South	146,563	519,200	1,616,420	1,696,704	2,197,832	906,319
Kuwait	0	0	69,390	140,382	0	0
Lebanon	0	220	0	0	0	0
Malaysia	1,303	145,807	377,164	352,654	283,434	383,737
Philippines	19,395	2,205	49,477	506,679	236,151	348,329
Saudi Arabia	200	0	8,795	21,112	32,760	66,636
Singapore	9,801	48,067	159,786	240,830	234,158	208,177
Taiwan	19,286	473,084	1,465,355	2,361,136	2,166,951	2,208,707
Thailand	114,512	236,181	472,491	487,130	419,427	375,619
United Arab Emirates	0	0	3,059	0	0	0
Total	942,890	2,291,934	5,470,686	7,258,791	6,378,738	6,986,676
MIDDLE EAST	397,603	144,970	475,322	855,925	36,810	1,163,117
OCEANIA:						
AUSTRALIA	9,744	0	1,006,460	15,898	1,413,817	2,608,158
NEW ZEALAND	3,210	0	34,576	189,464	465,118	765,036

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Single strength gallons)

Time period: Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1653360--Orange juice conc fz ov 1gal:						
EC-10:						
Belgium and Luxembourg	1,018,052	881,034	427,376	88,814	23,294	0
Denmark	0	0	285,520	0	0	0
France	549,191	277,200	137,534	195,887	55,139	6,925
Germany, West	2,853,301	355,617	3,142,385	3,503,588	682,250	79,022
Greece	0	0	0	0	0	0
Ireland	235,924	0	201,294	1,094,865	9,261	0
Netherlands	3,816,402	1,441,923	2,627,070	2,946,375	32,538	267,693
United Kingdom	1,954,956	242,149	886,561	1,598,937	158,448	195,185
Total	10,427,826	3,197,923	7,707,740	8,428,466	960,930	548,825
OTHER W. EUROPE:						
Austria	0	1,250	54,428	130,525	44,910	0
Finland	48,960	15,373	119,600	122,774	44,734	0
Iceland	332,352	196,760	388,496	555,265	94,315	85,691
Norway	795,229	597,421	989,292	1,194,709	88,388	226,864
Sweden	15,543	83,730	155,735	239,907	30,736	14,896
Switzerland	122,214	47,962	0	556,591	47,544	0
ASIA:						
Bahrain	0	0	0	0	0	0
China	0	0	0	0	0	0
Hong Kong	950,639	885,478	789,784	1,271,999	94,282	123,716
India	0	0	0	0	0	0
Indonesia	67,004	24,077	0	60,946	16,024	0
Iraq	0	0	0	132,245	0	0
Israel	1,073,075	1,402,140	1,076,182	788,446	284,577	114,259
Japan	885,355	940,131	729,860	840,969	240,410	375,110
Korea, South	1,007,782	670,835	800	193,643	0	32,000
Kuwait	0	0	2,941	0	0	0
Lebanon	0	0	0	0	0	0
Malaysia	261,692	222,045	145,151	124,861	13,426	23,091
Philippines	143,646	125,844	411,633	97,327	0	76,974
Saudi Arabia	37,629	0	0	118,077	0	0
Singapore	152,631	158,582	210,867	248,173	29,576	26,148
Taiwan	2,129,959	1,780,291	1,959,605	1,944,365	187,455	354,661
Thailand	403,948	416,236	85,629	83,296	0	0
United Arab Emirates	0	0	3,922	0	0	0
Total	7,113,360	6,625,659	5,416,374	5,904,347	865,750	1,125,959
MIDDLE EAST	1,110,704	1,402,140	1,083,045	1,038,768	284,577	114,259
OCEANIA:						
AUSTRALIA	832,070	0	289,798	0	0	46,317
NEW ZEALAND	853,648	854,559	608,356	1,096,892	160,741	43,830

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Single strength gallons)

Time period: Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1653360--Orange juice conc fz ov 1gal:						
ALL OTHER	13,095	44,534	214,056	85,799	78,076	69,793
Total	26,049	44,534	1,255,092	291,161	1,957,011	3,442,987
AFRICA:						
ALL OTHER	0	0	0	0	0	0
Total	0	0	0	0	0	0
1655400--Grape juice concentrated frz:						
CANADA	218,433	114,491	347,939	341,560	1,167,977	984,330
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	0	900	1,407	147,044	683	0
ALL OTHER	33,936	24,456	69,406	96,929	97,523	91,251
TOTAL	33,936	25,356	70,813	243,973	98,206	91,251
SOUTH AMERICA	0	2,120	0	489	0	7,063
TOTAL	33,936	27,476	70,813	244,462	98,206	98,314
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	0	0	0	296	0	0
Denmark	0	0	0	0	0	400
Germany, West	0	0	0	0	0	0
United Kingdom	0	373	0	0	5,563	0
Total	0	373	0	296	5,563	400
ASIA:						
Bahrain	0	0	0	1,070	0	0
Hong Kong	230	3,000	7,910	2,800	0	143,495
Indonesia	0	100	0	0	0	4,186
Israel	0	176	0	0	3,548	0
Japan	2,622	74,591	121,800	230,781	1,813,656	2,342,375
Kuwait	246	475	21,282	0	3,750	0
Malaysia	0	0	0	416	825	0
Philippines	0	0	891	11,663	7,630	3,285
Qatar	0	1,260	0	0	0	0
Saudi Arabia	0	3,705	0	3,900	11,657	3,681
Singapore	509	2,062	2,132	630	2,490	4,949
Taiwan	0	10,422	114,416	43,438	61,000	97,424
Thailand	0	3,000	0	0	0	0
Total	3,607	98,791	268,431	294,698	1,904,556	2,599,395
MIDDLE EAST	246	5,616	21,282	4,970	18,955	3,681
OCEANIA:						
NEW ZEALAND	0	0	0	0	0	0
ALL OTHER	319	2,078	440	900	8,676	3,145
Total	319	2,078	440	900	8,676	3,145
AFRICA:						
ALL OTHER	0	0	0	0	0	0

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Single strength gallons)

Schedule B commodity Partner / Time period	1984	1985	1986	1987	January-February 1987	January-February 1988
1653360--Orange juice conc fz ov 1gal:						
ALL OTHER	40,049	16,293	10,483	2,556	1,906	0
Total	1,725,767	870,852	908,637	1,099,448	162,647	90,147
AFRICA:						
ALL OTHER	0	0	18,480	21,112	0	0
Total	0	0	18,480	21,112	0	0
1655400--Grape juice concentrated frz						
CANADA	629,475	365,955	359,043	469,496	111,477	64,739
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	0	0	0	19,799	0	0
ALL OTHER	34,886	30,949	31,524	14,382	4,350	13,500
TOTAL	34,886	30,949	31,524	34,181	4,350	13,500
SOUTH AMERICA	5,000	0	0	0	0	0
TOTAL	39,886	30,949	31,524	34,181	4,350	13,500
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	0	0	0	0	0	0
Denmark	0	0	0	0	0	0
Germany, West	0	130,158	0	0	0	0
United Kingdom	0	0	0	0	0	0
Total	0	130,158	0	0	0	0
ASIA:						
Bahrain	0	0	0	0	0	0
Hong Kong	303,414	0	9,144	2,956	0	0
Indonesia	0	0	2,144	0	0	0
Israel	0	0	0	0	0	0
Japan	1,102,606	563,979	1,480,127	1,505,941	119,032	168,981
Kuwait	0	0	0	0	0	0
Malaysia	0	0	0	0	0	0
Philippines	4,475	3,285	3,285	3,285	0	0
Qatar	0	0	0	0	0	0
Saudi Arabia	0	0	0	20,263	0	0
Singapore	20,573	0	0	0	0	0
Taiwan	141,205	135,789	48,279	260,283	0	0
Thailand	0	20,416	0	0	0	0
Total	1,572,273	723,469	1,542,979	1,792,728	119,032	168,981
MIDDLE EAST	0	0	0	20,263	0	0
OCEANIA:						
NEW ZEALAND	10,429	0	0	26,806	0	0
ALL OTHER	2,900	0	0	3,125	0	0
Total	13,329	0	0	29,931	0	0
AFRICA:						
ALL OTHER	0	1,140	0	0	0	20,160

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Single strength gallons)

Time period Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1655400--Grape juice concentrated frz						
Total	0	0	0	0	0	0
1657400--Orange juice concntrtd nt fz						
CANADA	1,672,675	1,411,663	2,263,203	1,054,388	742,174	670,981
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	31,032	13,561	21,829	56,236	35,242	0
ALL OTHER	33,163	48,795	276,537	410,916	293,232	228,241
TOTAL	64,195	62,359	298,366	467,152	328,474	228,241
SOUTH AMERICA	7,817	17,176	4,214	2,040	69,579	26,820
TOTAL	72,012	79,535	302,580	469,192	398,053	255,061
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	0
Belgium and Luxembourg	12,025	11,353	43,103	81,162	119,562	34,076
Denmark	27,192	18,105	78,312	63,616	78,198	92,830
France	102,963	62,660	43,634	43,128	68,652	42,290
Germany, West	71,160	122,224	514,345	833,468	420,615	213,143
Greece	0	0	0	0	0	0
Ireland	43,321	159,370	116,760	306,901	442,402	262,239
Italy	272	0	0	0	0	0
Netherlands	320,683	43,914	323,639	262,858	413,401	99,405
United Kingdom	71,519	106,282	638,792	939,702	471,465	432,585
Total	649,135	523,908	1,758,585	2,530,835	2,014,295	1,176,568
OTHER W. EUROPE:						
Austria	9,117	4,781	51,495	3,375	25,030	3,863
Cyprus	12,261	0	0	15,180	0	16,991
Finland	0	0	0	0	20,808	0
Iceland	957	74,532	738	0	23,328	0
Malta and Gozo	0	12,334	0	0	0	0
Norway	3,545	9,091	29,067	41,301	77,368	55,470
Portugal	0	315	0	0	0	0
Spain	540	2,800	0	0	0	0
Sweden	32,592	24,462	82,160	131,539	193,824	89,400
Switzerland	94,219	70,466	339,788	427,585	382,966	131,965
Turkey	376	200	1,269	0	2,293	1,529
ASIA:						
Bahrain	0	12,162	2,406	86,324	39,784	111,811
Brunei	268	0	0	0	0	0
China	0	0	0	2,064	0	0
Hong Kong	78,077	93,528	257,587	386,301	311,022	475,725
India	0	0	0	0	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Single strength gallons)

Time period Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1655400--Grape juice concentrated frz						
Total	0	1,140	0	0	0	20,160
1657400--Orange juice concntrtd nt fz						
CANADA	463,078	194,450	159,140	162,236	27,486	17,937
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	16,230	32,526	0	2,754	2,754	0
ALL OTHER	388,394	326,921	251,058	244,371	53,154	38,354
TOTAL	404,624	359,447	251,058	247,125	55,908	38,354
SOUTH AMERICA	33,960	15,730	8,495	3,036	669	3,201
TOTAL	438,584	375,177	259,553	250,161	56,577	41,555
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	10,096
Belgium and Luxembourg	152,063	7,056	6,912	6,119	0	0
Denmark	40,788	77,354	44,460	190,275	24,068	7,931
France	125,259	23,400	22,290	46,006	12,600	1,307
Germany, West	70,141	100,070	172,719	362,699	79,125	28,464
Greece	600	0	0	0	0	0
Ireland	128,833	76,063	0	0	0	0
Italy	1,125	0	1,684	0	0	0
Netherlands	30,956	21,362	44,050	54,045	0	0
United Kingdom	169,761	85,452	53,009	32,853	9,283	25,766
Total	1,019,526	390,757	345,124	691,997	125,076	73,564
OTHER W. EUROPE:						
Austria	8,043	0	18,700	5,700	0	0
Cyprus	0	0	0	0	0	0
Finland	0	0	0	0	0	0
Iceland	0	0	0	0	0	0
Malta and Gozo	0	0	1,050	0	0	0
Norway	84,240	39,024	38,520	58,159	0	4,964
Portugal	0	0	0	0	0	0
Spain	0	0	0	0	0	0
Sweden	0	0	0	130,520	8,218	87,451
Switzerland	269,113	115,719	199,609	149,886	44,220	0
Turkey	1,613	3,582	1,805	2,323	0	0
ASIA:						
Bahrain	0	0	61,425	0	0	0
Brunei	0	1,880	0	7,763	3,968	0
China	0	0	0	0	0	0
Hong Kong	519,800	231,742	307,614	446,091	55,480	35,432
India	6,134	0	0	0	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Single strength gallons)

Time period: Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1657400--Orange juice concntrtd nt fz:						
Indonesia	29,246	6,247	876	4,605	3,245	0
Iran	6,461	3,596	0	0	0	0
Iraq	2,700	0	0	0	0	0
Israel	136,480	0	0	480	0	0
Japan	116,629	213,113	224,922	118,538	133,823	179,106
Jordan	36,766	28,616	0	0	157,657	0
Korea, South	82,602	18,266	21,536	4,572	134,778	204,340
Kuwait	58,289	100,465	148,595	120,000	171,482	245,421
Lebanon	0	0	0	0	0	0
Macao	0	0	0	0	0	849
Malaysia	336,967	167,051	621,389	602,483	783,106	757,400
Oman	0	2,100	0	22,922	18,334	0
Pakistan	428	0	0	1,571	0	0
Philippines	18,289	38,839	103,309	43,650	89,254	139,999
Qatar	0	0	0	0	764	0
Saudi Arabia	252,652	121,692	421,796	231,577	181,101	164,122
Singapore	83,411	114,418	591,466	350,176	683,404	640,713
Sri Lanka (Ceylon)	0	431	0	0	0	0
Syria	1,880	0	7,440	10,671	0	0
Taiwan	2,472	0	0	2,438	0	131,613
Thailand	57,491	3,863	637	11,203	0	9,287
United Arab Emirates	8,103	34,738	118,106	3,607	36,106	88,406
Total	1,309,211	959,125	2,520,065	2,003,182	2,743,860	3,148,792
MIDDLE EAST	503,331	303,369	698,343	475,581	605,228	609,760
OCEANIA:						
AUSTRALIA	1,236	1,704	0	0	50,150	0
NEW ZEALAND	99,746	203,270	284,581	1,247	0	1,560
ALL OTHER	12,458	5,391	9,168	15,183	11,240	14,548
Total	113,440	210,365	293,749	16,430	61,390	16,108
AFRICA:						
ALL OTHER	115,314	43,160	38,058	21,573	12,026	18,086
Total	115,314	43,160	38,058	21,573	12,026	18,086
1658000--Grape juice concntrtd not fz:						
CANADA	1,387,368	1,456,328	1,345,955	1,073,290	860,800	1,046,295
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	258	450	0	738,431	36,000	0
ALL OTHER	25,652	42,749	128,142	219,150	309,090	396,648
TOTAL	25,910	43,199	128,142	957,581	345,090	396,648
SOUTH AMERICA	0	0	4,600	12,030	4,350	0
TOTAL	25,910	43,199	132,742	969,611	349,440	396,648

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Single strength gallons)

Schedule B commodity Partner / Time period	1984	1985	1986	1987	January-February 1987	January-February 1988
1657400--Orange juice concntrtd nt fz:						
Indonesia	0	0	0	2,314	0	0
Iran	0	0	0	0	0	0
Iraq	0	0	0	0	0	0
Israel	0	0	12,080	0	0	0
Japan	185,801	489,664	417,791	240,508	12,500	89,263
Jordan	0	0	0	0	0	5,780
Korea, South	228,006	324,349	83,230	8,675	0	0
Kuwait	39,434	13,608	102,893	10,511	0	0
Lebanon	19,082	0	0	0	0	0
Macao	0	0	0	0	0	0
Malaysia	550,059	541,692	725,730	475,620	105,765	76,639
Oman	56,525	0	8,253	0	0	0
Pakistan	0	0	0	0	0	0
Philippines	39,408	20,973	28,883	50,018	1,926	0
Qatar	3,057	0	3,692	0	0	0
Saudi Arabia	111,963	82,037	37,513	357,614	0	0
Singapore	440,518	437,544	452,828	299,689	45,230	32,400
Sri Lanka (Ceylon)	0	0	0	0	0	0
Syria	0	0	0	0	0	0
Taiwan	0	0	103,156	177,895	24,132	18,050
Thailand	5,305	3,400	108,370	59,360	40,640	93,243
United Arab Emirates	33,777	99,535	72,033	6,720	0	28,119
Total	2,238,869	2,246,424	2,525,491	2,142,778	289,641	378,926
MIDDLE EAST	263,838	195,180	297,889	374,845	0	33,899
OCEANIA:						
AUSTRALIA	0	0	0	0	0	0
NEW ZEALAND	2,575	2,184	0	0	0	0
ALL OTHER	16,070	22,781	7,580	2,070	870	0
Total	18,645	24,965	7,580	2,070	870	0
AFRICA:						
ALL OTHER	14,320	37,053	28,094	14,830	0	0
Total	14,320	37,053	28,094	14,830	0	0
1658000--Grape juice concntrtd not fz:						
CANADA	1,880,576	753,669	888,918	1,141,095	125,902	83,815
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	1,464	0	0	0	0	7,632
ALL OTHER	301,892	98,415	352,043	29,175	11,008	4,700
TOTAL	303,356	98,415	352,043	29,175	11,008	12,332
SOUTH AMERICA	1,409	0	4,126	975	975	0
TOTAL	304,765	98,415	356,169	30,150	11,983	12,332

Continued--

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Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity

Time period: Schedule B commodity Partner	1978	1979	1980	1981
1658000--Grape juice concntrtd not fz				
WESTERN EUROPE:				
EC-10:				
Belgium and Luxembourg	967 ssg	0	565 ssg	0
Denmark	0	0	15,600 ssg	0
France	0	0	0	0
Germany, West	1,422 ssg	2,974 ssg	0	0
Italy	0	0	0	512 ssg
Netherlands	0	7,066 ssg	0	0
United Kingdom	1,188 ssg	0	20,960 ssg	0
Total	3,577 ssg	10,040 ssg	37,125 ssg	512 ssg
OTHER W. EUROPE:				
Iceland	0	0	0	1,120 ssg
Switzerland	0	450 ssg	0	0
ASIA:				
Bahrain	1,055 ssg	0	0	0
Hong Kong	10,704 ssg	10,150 ssg	2,825 ssg	77,195 ssg
India	0	0	461 ssg	0
Indonesia	233 ssg	0	0	0
Japan	606,862 ssg	928,925 ssg	522,644 ssg	2,124,593 ssg
Korea, South	0	0	0	0
Kuwait	0	4,095 ssg	11,408 ssg	0
Malaysia	211 ssg	604 ssg	0	671 ssg
Philippines	574 ssg	1,731 ssg	2,628 ssg	3,737 ssg
Saudi Arabia	3,915 ssg	3,895 ssg	159,452 ssg	13,960 ssg
Singapore	352 ssg	0	2,160 ssg	5,617 ssg
Taiwan	4,610 ssg	0	0	19,580 ssg
Thailand	0	0	0	0
United Arab Emirates	7,074 ssg	1,377 ssg	0	0
Total	635,590 ssg	950,777 ssg	701,578 ssg	2,245,353 ssg
MIDDLE EAST	12,044 ssg	9,367 ssg	170,860 ssg	13,960 ssg
OCEANIA:				
AUSTRALIA	222 ssg	60 ssg	0	177 ssg
ALL OTHER	158 ssg	597 ssg	84 ssg	0
Total	380 ssg	657 ssg	84 ssg	177 ssg
AFRICA:				
ALL OTHER	0	0	2,467 ssg	19,967 ssg
Total	0	0	2,467 ssg	19,967 ssg
1663020--Tomato juice & mix veg juice				
CANADA	1,408,441 gal	377,939 gal	262,361 gal	257,544 gal

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity

Schedule B commodity Partner / Time period	1982	1983	1984	1985
1658000--Grape juice concntrtd not fz				
WESTERN EUROPE:				
EC-10:				
Belgium and Luxembourg	299 ssg	556 ssg	580 ssg	0
Denmark	0	0	0	0
France	0	0	19,751 ssg	0
Germany, West	21,015 ssg	42,381 ssg	58,199 ssg	0
Italy	0	0	0	0
Netherlands	0	0	0	1,120 ssg
United Kingdom	0	0	0	0
Total	21,314 ssg	42,937 ssg	78,530 ssg	1,120 ssg
OTHER W. EUROPE:				
Iceland	0	0	0	0
Switzerland	0	0	0	0
ASIA:				
Bahrain	0	0	0	0
Hong Kong	32,678 ssg	0	61,988 ssg	0
India	0	0	0	0
Indonesia	0	0	0	0
Japan	2,119,941 ssg	673,657 ssg	1,404,315 ssg	3,015,847 ssg
Korea, South	0	0	0	0
Kuwait	0	488 ssg	42,232 ssg	0
Malaysia	0	0	0	0
Philippines	1,300 ssg	1,300 ssg	0	0
Saudi Arabia	123,636 ssg	316,393 ssg	75,913 ssg	34,386 ssg
Singapore	905 ssg	0	1,558 ssg	0
Taiwan	11,806 ssg	0	17,433 ssg	21,284 ssg
Thailand	0	216 ssg	0	0
United Arab Emirates	686 ssg	16,104 ssg	0	0
Total	2,290,952 ssg	1,008,158 ssg	1,603,439 ssg	3,071,517 ssg
MIDDLE EAST	124,322 ssg	332,985 ssg	118,145 ssg	34,386 ssg
OCEANIA:				
AUSTRALIA	400 ssg	560 ssg	406 ssg	0
ALL OTHER	400 ssg	0	0	0
Total	800 ssg	560 ssg	406 ssg	0
AFRICA:				
ALL OTHER	0	0	0	0
Total	0	0	0	0
1663020--Tomato juice & mix veg juice				
CANADA	185,702 gal	150,328 gal	68,094 gal	36,233 gal

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS

Flow: Domestic exports

Type: First unit of quantity

Schedule B commodity Partner / Time period	1986	1987	January-February 1987	January-February 1988
1658000--Grape juice concntrtd not fz				
WESTERN EUROPE:				
EC-10:				
Belgium and Luxembourg	0	0	0	0
Denmark	0	0	0	0
France	0	0	0	0
Germany, West	19,430 ssg	0	0	0
Italy	0	0	0	0
Netherlands	0	0	0	0
United Kingdom	0	0	0	0
Total	19,430 ssg	0	0	0
OTHER W. EUROPE:				
Iceland	0	0	0	0
Switzerland	0	38,500 ssg	0	0
ASIA:				
Bahrain	0	0	0	0
Hong Kong	255,892 ssg	192,496 ssg	132,973 ssg	0
India	0	0	0	0
Indonesia	0	0	0	0
Japan	1,810,329 ssg	3,457,680 ssg	1,089,122 ssg	783,633 ssg
Korea, South	8,000 ssg	22,500 ssg	0	0
Kuwait	0	5,634 ssg	0	0
Malaysia	0	5,824 ssg	0	0
Philippines	0	23,710 ssg	0	0
Saudi Arabia	0	0	0	0
Singapore	0	0	0	0
Taiwan	128,722 ssg	18,700 ssg	0	0
Thailand	0	0	0	0
United Arab Emirates	758 ssg	0	0	0
Total	2,203,701 ssg	3,726,544 ssg	1,222,095 ssg	783,633 ssg
MIDDLE EAST	758 ssg	5,634 ssg	0	0
OCEANIA:				
AUSTRALIA	0	0	0	0
ALL OTHER	18,823 ssg	1,210 ssg	0	0
Total	18,823 ssg	1,210 ssg	0	0
AFRICA:				
ALL OTHER	4,495 ssg	2,058 ssg	0	20,160 ssg
Total	4,495 ssg	2,058 ssg	0	20,160 ssg
1663020--Tomato juice & mix veg juice				
CANADA	197,608 gal	112,041 gal	0	15,715 gal

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Gallons)

Schedule B commodity Partner / Time period	1978	1979	1980	1981	1982	1983
1663020--Tomato juice & mix veg juice:						
CENTRAL AMERICA:						
MEXICO	101,252	99,299	240,556	213,752	29,962	5,321
ALL OTHER	147,240	158,020	365,244	275,085	324,710	175,157
TOTAL	248,492	257,319	605,800	488,837	354,672	180,478
SOUTH AMERICA	32,659	47,163	80,785	41,742	42,034	5,431
TOTAL	281,151	304,482	686,585	530,579	396,706	185,909
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	1,576	0	966	3,009	4,434	1,797
Denmark	5,222	6,391	6,923	15,522	11,400	12,990
France	896	0	0	0	0	0
Germany, West	1,315	484	0	528	0	9,383
Greece	0	2,827	4,212	12,751	3,830	2,136
Ireland	0	0	1,505	0	497	200
Italy	0	0	38,437	21,915	430	0
Netherlands	915	0	1,518	2,757	1,341	1,403
United Kingdom	300	4,214	21,995	34,731	18,673	9,524
Total	10,224	13,916	75,556	91,213	40,605	37,433
OTHER W. EUROPE:						
Austria	0	0	0	0	1,304	0
Finland	1,016	0	0	2,880	1,750	0
Iceland	1,377	4,140	4,497	2,604	3,806	2,240
Malta and Gozo	0	900	0	5,252	0	0
Norway	6,743	14,838	26,066	24,798	11,791	17,732
Spain	0	0	0	0	1,200	0
Sweden	6,660	24,440	41,996	21,540	27,310	20,032
Switzerland	2,347	0	0	0	3,939	583
ASIA:						
Bahrain	101,500	98,235	228,553	243,129	150,662	69,389
Brunei	0	0	0	0	0	694
Hong Kong	191,802	186,348	250,742	324,231	341,946	272,063
India	0	0	652	872	264	0
Indonesia	20,516	27,750	44,090	21,450	71,132	39,630
Iran	647	0	0	0	0	0
Israel	2,057	539	450	620	4,854	2,759
Japan	495,755	750,302	877,511	370,651	241,405	113,429
Jordan	1,732	0	3,210	1,864	426	0
Korea, South	24,291	30,937	34,292	43,459	37,122	22,152
Kuwait	66,736	24,338	73,772	77,435	95,928	24,101
Lebanon	0	2,189	8,786	867	2,586	1,565
Malaysia	44,034	35,518	71,914	72,992	76,136	48,636

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Gallons)

Time period Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1663020--Tomato juice & mix veg juice:						
CENTRAL AMERICA:						
MEXICO	8,440	134,775	83,086	27,660	11,400	0
ALL OTHER	138,571	115,963	184,954	212,603	38,536	28,587
TOTAL	147,011	250,738	268,040	240,263	49,936	28,587
SOUTH AMERICA	3,456	9,467	4,800	142,737	19,310	0
TOTAL	150,467	260,205	272,840	383,000	69,246	28,587
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	4,488	0	0	0	0	0
Denmark	9,723	4,600	0	2,614	0	0
France	0	0	0	0	0	0
Germany, West	3,395	1,838	0	956	0	0
Greece	3,510	4,324	860	3,509	1,248	778
Ireland	1,125	0	0	0	0	0
Italy	2,824	0	0	0	0	0
Netherlands	968	0	823	0	0	0
United Kingdom	19,352	6,774	6,332	4,306	0	0
Total	45,385	17,536	8,015	11,385	1,248	778
OTHER W. EUROPE:						
Austria	0	0	0	0	0	0
Finland	0	0	0	0	0	0
Iceland	1,105	795	443	0	0	0
Malta and Gozo	0	0	0	0	0	0
Norway	18,636	5,132	22,759	6,269	555	0
Spain	2,400	0	0	0	0	0
Sweden	18,120	17,638	24,895	29,439	2,306	5,380
Switzerland	1,013	0	5,055	23,064	3,833	0
ASIA:						
Bahrain	76,055	24,267	39,557	21,858	2,272	1,294
Brunei	0	0	647	1,056	0	0
Hong Kong	179,341	308,202	272,770	283,283	13,726	50,434
India	0	0	0	0	0	0
Indonesia	61,315	23,608	13,275	9,004	2,881	549
Iran	0	0	0	0	0	0
Israel	7,873	0	0	0	0	0
Japan	83,050	111,223	192,077	169,447	8,888	95,342
Jordan	796	0	0	0	0	0
Korea, South	24,159	25,303	69,508	46,630	3,018	7,762
Kuwait	34,026	18,050	36,052	21,319	1,594	3,553
Lebanon	868	0	0	0	0	0
Malaysia	65,538	43,674	29,141	24,452	4,456	7,528

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Gallons)

Time period Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1663020--Tomato juice & mix veg juice:						
Oman	7,585	5,410	33,229	45,092	49,900	55,761
Philippines	987	1,029	2,055	4,879	15,802	2,168
Qatar	70,359	49,965	10,108	27,032	47,663	50,290
Saudi Arabia	739,419	738,148	686,506	1,248,426	888,590	546,388
Singapore	66,199	116,811	163,846	203,076	185,512	168,478
Taiwan	11,945	35,168	29,328	15,501	4,566	5,537
Thailand	2,876	0	0	0	0	0
United Arab Emirates	31,737	51,703	101,761	142,324	130,289	100,427
Total	1,880,177	2,154,390	2,620,805	2,843,903	2,344,783	1,523,467
MIDDLE EAST	1,021,772	970,527	1,146,375	1,786,789	1,370,898	850,680
OCEANIA:						
AUSTRALIA	180	0	724	720	240	0
ALL OTHER	19,122	10,504	52,458	12,754	12,426	12,105
Total	19,302	10,504	53,182	13,474	12,666	12,105
AFRICA:						
ALL OTHER	36,380	43,812	53,844	84,277	84,926	23,443
Total	36,380	43,812	53,844	84,277	84,926	23,443
1663040--Vegetable juices, nspf						
CANADA	256,189	211,178	235,668	363,695	145,590	384,918
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	49,559	80,110	80,902	210,020	71,592	30,968
ALL OTHER	324,308	615,981	257,810	275,958	423,061	444,316
TOTAL	373,867	696,091	338,712	485,978	494,653	475,284
SOUTH AMERICA	450	23,633	28,679	16,131	21,143	9,375
TOTAL	374,317	719,724	367,391	502,109	515,796	484,659
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	0	0	0	720	4,333	1,666
Denmark	484	0	0	600	1,000	0
France	0	0	2,222	3,153	0	0
Germany, West	209	4,679	4,912	4,485	4,441	5,130
Greece	0	0	1,560	0	0	0
Ireland	0	0	0	0	0	0
Italy	0	422	0	849	0	2,461
Netherlands	0	0	0	0	0	0
United Kingdom	535	992	0	4,850	24	0
Total	1,228	6,093	8,694	14,657	9,798	9,257
OTHER W. EUROPE:						
Austria	0	0	0	552	0	0
Finland	0	0	0	0	0	0
Iceland	0	1,533	566	366	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Gallons)

Time period: Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1663020--Tomato juice & mix veg juice:						
Oman	27,708	25,873	28,516	7,985	0	863
Philippines	0	0	778	1,196	0	726
Qatar	30,844	19,306	25,929	21,113	3,967	0
Saudi Arabia	328,084	177,840	148,015	103,603	0	1,134
Singapore	121,532	96,903	110,990	85,106	7,116	18,545
Taiwan	8,100	12,964	18,350	9,317	467	3,781
Thailand	0	0	0	0	0	0
United Arab Emirates	104,027	37,270	54,559	29,800	917	9,103
Total	1,153,316	924,483	1,040,164	835,169	49,302	200,614
MIDDLE EAST	610,281	302,606	332,628	205,678	8,750	15,947
OCEANIA:						
AUSTRALIA	2,630	249	1,000	0	0	0
ALL OTHER	6,216	4,438	5,938	1,080	0	0
Total	8,846	4,687	6,938	1,080	0	0
AFRICA:						
ALL OTHER	22,742	7,549	2,091	10,030	7,600	0
Total	22,742	7,549	2,091	10,030	7,600	0
1663040--Vegetable juices, nspf						
CANADA	353,222	139,013	130,430	111,815	11,738	0
LATIN AMERICA:						
CENTRAL AMERICA:						
MEXICO	53,292	31,696	90,389	11,123	1,920	4,061
ALL OTHER	424,557	258,515	103,815	194,342	10,378	30,551
TOTAL	477,849	290,241	194,204	205,465	12,298	34,612
SOUTH AMERICA	7,762	21,974	12,653	900	0	698
TOTAL	485,611	312,215	206,857	206,365	12,298	35,310
WESTERN EUROPE:						
EC-10:						
Belgium and Luxembourg	0	0	600	0	0	0
Denmark	0	0	4,230	1,324	0	0
France	0	0	3,024	720	0	0
Germany, West	3,566	12,029	25,153	22,664	0	5,678
Greece	0	0	0	0	0	0
Ireland	460	480	0	0	0	0
Italy	0	0	4,750	1,440	1,440	1,689
Netherlands	560	8,452	0	7,272	2,763	0
United Kingdom	29,629	13,771	81,777	4,897	2,200	0
Total	34,215	34,732	119,534	38,317	6,403	7,367
OTHER W. EUROPE:						
Austria	0	0	0	0	0	0
Finland	0	0	0	1,540	0	0
Iceland	336	0	0	0	0	0

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity

Time period Schedule B commodity Partner	1978	1979	1980	1981
1663040--Vegetable juices, nspf				
Norway	171 gal	0	350 gal	885 gal
Portugal	0	0	0	0
Spain	478 gal	0	0	0
Sweden	0	320 gal	0	480 gal
Switzerland	0	0	0	0
ASIA:				
Bahrain	0	0	0	3,534 gal
Hong Kong	4,083 gal	1,416 gal	551 gal	24,949 gal
India	0	0	0	1,184 gal
Indonesia	1,772 gal	985 gal	10,665 gal	1,068 gal
Israel	0	522 gal	0	0
Japan	24,916 gal	10,692 gal	8,455 gal	27,291 gal
Jordan	2,327 gal	0	0	0
Korea, South	3,050 gal	9,634 gal	270 gal	810 gal
Kuwait	626 gal	1,282 gal	1,350 gal	0
Malaysia	539 gal	0	0	0
Oman	0	0	0	0
Pakistan	0	0	0	4,424 gal
Philippines	0	0	50 gal	879 gal
Qatar	0	250 gal	0	0
Saudi Arabia	25,805 gal	54,350 gal	47,360 gal	94,529 gal
Singapore	5,908 gal	3,816 gal	20,232 gal	8,194 gal
Taiwan	11,280 gal	0	0	0
Thailand	0	0	0	0
United Arab Emirates	0	18,859 gal	0	15,435 gal
Total	80,306 gal	101,806 gal	88,933 gal	182,297 gal
MIDDLE EAST	28,758 gal	75,263 gal	48,710 gal	113,498 gal
OCEANIA:				
AUSTRALIA	0	0	0	225 gal
NEW ZEALAND	0	0	0	0
ALL OTHER	4,018 gal	4,604 gal	4,153 gal	383 gal
Total	4,018 gal	4,604 gal	4,153 gal	608 gal
AFRICA:				
ALL OTHER	170,507 gal	117,083 gal	40,421 gal	23,852 gal
Total	170,507 gal	117,083 gal	40,421 gal	23,852 gal
1674300--Wine nspf from fr grape/must				
CANADA	411,860 wg	804,139 wg	653,298 wg	518,863 wg
LATIN AMERICA:				
CENTRAL AMERICA:				
MEXICO	17,141 wg	10,337 wg	25,278 wg	28,595 wg
ALL OTHER	202,564 wg	277,958 wg	409,954 wg	553,002 wg
TOTAL	219,705 wg	288,295 wg	435,232 wg	581,597 wg

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES

DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity

Time period: Schedule B commodity Partner	1982	1983	1984	1985
1663040--Vegetable juices, nspf				
Norway	3,714 gal	1,976 gal	768 gal	350 gal
Portugal	0	547 gal	617 gal	0
Spain	0	0	0	0
Sweden	5,045 gal	2,407 gal	3,360 gal	2,933 gal
Switzerland	0	0	0	815 gal
ASIA:				
Bahrain	0	0	0	881 gal
Hong Kong	20,778 gal	637 gal	0	3,745 gal
India	0	0	0	0
Indonesia	9,465 gal	8,446 gal	978 gal	1,561 gal
Israel	650 gal	0	0	0
Japan	5,921 gal	58,780 gal	18,416 gal	32,363 gal
Jordan	0	365 gal	0	0
Korea, South	81,976 gal	41,526 gal	9,268 gal	0
Kuwait	10,935 gal	27,691 gal	48,371 gal	42,092 gal
Malaysia	2,000 gal	10,170 gal	0	0
Oman	0	0	0	5,797 gal
Pakistan	0	0	0	10,251 gal
Philippines	58,401 gal	0	0	0
Qatar	0	0	0	0
Saudi Arabia	34,826 gal	3,786 gal	78,581 gal	0
Singapore	597 gal	4,488 gal	2,208 gal	0
Taiwan	863 gal	0	0	0
Thailand	0	0	215 gal	3,925 gal
United Arab Emirates	36,641 gal	94,008 gal	9,781 gal	40,381 gal
Total	263,053 gal	249,897 gal	167,818 gal	140,996 gal
MIDDLE EAST	83,052 gal	125,850 gal	136,733 gal	89,151 gal
OCEANIA:				
AUSTRALIA	8,391 gal	74,845 gal	19,829 gal	13,433 gal
NEW ZEALAND	0	3,229 gal	0	0
ALL OTHER	0	299 gal	0	330 gal
Total	8,391 gal	78,373 gal	19,829 gal	13,763 gal
AFRICA:				
ALL OTHER	30,885 gal	679 gal	0	6,448 gal
Total	30,885 gal	679 gal	0	6,448 gal
1674300--Wine nspf from fr grape/must				
CANADA	312,656 wg	299,407 wg	206,920 wg	196,975 wg
LATIN AMERICA:				
CENTRAL AMERICA:				
MEXICO	9,199 wg	7,951 wg	2,254 wg	14,641 wg
ALL OTHER	476,220 wg	411,522 wg	354,214 wg	452,467 wg
TOTAL	485,419 wg	419,473 wg	356,468 wg	467,108 wg

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS

Flow: Domestic exports
Type: First unit of quantity

Time period: Schedule B commodity Partner	1986	1987	January-February 1987	 1988
1663040--Vegetable juices, nspf				
Norway	1,800 gal	0	0	0
Portugal	0	0	0	0
Spain	2,139 gal	0	0	0
Sweden	35,066 gal	31,799 gal	15,834 gal	8,735 gal
Switzerland	0	7,766 gal	7,766 gal	0
ASIA:				
Bahrain	0	0	0	0
Hong Kong	31,534 gal	2,650 gal	0	0
India	0	0	0	0
Indonesia	5,736 gal	2,200 gal	0	0
Israel	0	0	0	0
Japan	42,268 gal	90,962 gal	1,913 gal	34,624 gal
Jordan	0	0	0	0
Korea, South	3,960 gal	0	0	0
Kuwait	92,472 gal	0	0	0
Malaysia	17,988 gal	550 gal	0	688 gal
Oman	5,940 gal	6,360 gal	0	0
Pakistan	0	0	0	0
Philippines	4,986 gal	4,488 gal	3,062 gal	0
Qatar	0	0	0	0
Saudi Arabia	20,294 gal	2,150 gal	0	0
Singapore	17,075 gal	7,423 gal	75 gal	1,503 gal
Taiwan	100 gal	25,300 gal	0	0
Thailand	23,550 gal	104,944 gal	7,850 gal	32,674 gal
United Arab Emirates	5,660 gal	11,089 gal	0	0
Total	271,563 gal	258,116 gal	12,900 gal	69,489 gal
MIDDLE EAST	124,366 gal	19,599 gal	0	0
OCEANIA:				
AUSTRALIA	86,501 gal	9,793 gal	6,486 gal	1,657 gal
NEW ZEALAND	0	0	0	0
ALL OTHER	1,547 gal	6,696 gal	0	0
Total	88,048 gal	16,489 gal	6,486 gal	1,657 gal
AFRICA:				
ALL OTHER	0	6,919 gal	0	0
Total	0	6,919 gal	0	0
1674300--Wine nspf from fr grape/must				
CANADA	337,825 wg	221,338 wg	41,099 wg	11,008 wg
LATIN AMERICA:				
CENTRAL AMERICA:				
MEXICO	34,878 wg	84,084 wg	0	2,606 wg
ALL OTHER	500,028 wg	394,436 wg	70,880 wg	48,643 wg
TOTAL	534,906 wg	478,520 wg	70,880 wg	51,249 wg

Continued--

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Wine gallons)

Time period: Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1674300--Wine nspf from fr grape/must:						
SOUTH AMERICA	9,344	12,486	52,380	61,334	46,154	30,334
TOTAL	229,049	300,781	487,612	642,931	531,573	449,807
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	0
Belgium and Luxembourg	4,525	8,855	55,389	243,012	11,729	16,743
Denmark	0	0	2,138	10,727	39,286	233
France	1,797	8,982	19,392	50,692	14,459	7,994
Germany, West	1,939	3,609	104,471	186,742	23,519	11,632
Greece	0	200	0	226	0	0
Ireland	0	0	35,307	27,696	0	0
Italy	3,559	114	0	3,545	240	0
Netherlands	10,198	7,985	7,632	28,255	1,913	3,322
United Kingdom	3,832	12,506	152,475	667,022	26,414	30,213
Total	25,850	42,251	376,804	1,217,917	117,560	70,137
OTHER W. EUROPE:						
Austria	0	0	0	3,150	0	0
Finland	0	0	0	356	0	0
Iceland	6,574	1,163	316	10,615	38,812	25,252
Norway	0	302	0	944	0	0
Spain	0	83	394	0	231	0
Sweden	0	0	0	19,623	2,595	211
Switzerland	1,415	0	4,443	86,639	33,808	6,056
Yugoslavia	0	0	161	0	0	0
ASIA:						
Bangladesh	316	522	475	650	0	0
Burma	442	472	384	68	223	0
China	0	0	989	0	237	0
Hong Kong	671	1,188	6,413	12,217	19,543	7,976
India	797	912	533	1,519	0	0
Indonesia	1,439	1,080	1,442	12,333	4,075	3,229
Iran	2,851	0	0	0	0	0
Israel	0	0	376	0	199	713
Japan	41,699	7,738	64,724	70,034	50,479	27,365
Jordan	0	307	678	1,637	451	0
Korea, South	1,360	0	4,832	0	80	1,441
Kuwait	483	784	870	0	0	0
Malaysia	2,485	1,983	2,037	432	1,790	2,660
Pakistan	0	206	0	0	0	0
Philippines	9,142	12,477	7,480	11,392	7,607	6,379
Singapore	442	1,094	7,801	22,088	9,083	21,828

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Wine gallons)

Time period: Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1674300--Wine nspf from fr grape/must						
SOUTH AMERICA	21,058	34,366	14,816	14,770	4,226	5,190
TOTAL	377,526	501,474	549,722	493,290	75,106	56,439
WESTERN EUROPE:						
EC-10:						
Belgium	0	0	0	0	0	880
Belgium and Luxembourg	27,829	12,540	11,613	25,307	3,594	0
Denmark	11,050	3,469	9,092	62,995	0	5,309
France	5,154	34,272	11,410	12,435	0	1,168
Germany, West	7,131	18,880	22,881	21,786	11,816	0
Greece	0	0	0	1,461	0	0
Ireland	0	0	0	0	0	0
Italy	0	0	1,936	100,750	0	7,545
Netherlands	0	10,792	7,574	42,239	2,532	0
United Kingdom	100,211	164,169	161,751	223,399	12,211	25,466
Total	151,375	244,122	226,257	490,372	30,153	40,368
OTHER W. EUROPE:						
Austria	0	0	0	0	0	0
Finland	0	0	0	0	0	0
Iceland	6,846	1,666	1,131	0	0	0
Norway	0	166	0	1,188	0	0
Spain	0	0	0	10,692	0	0
Sweden	1,366	6,407	9,424	4,816	4,816	0
Switzerland	4,818	30	1,581	184,838	8,873	732
Yugoslavia	0	0	0	0	0	0
ASIA:						
Bangladesh	0	0	0	0	0	0
Burma	0	0	0	0	0	0
China	0	0	0	0	0	0
Hong Kong	3,098	3,160	8,488	23,281	0	7,012
India	0	0	0	88	0	0
Indonesia	5,268	0	0	798	0	0
Iran	0	0	0	0	0	0
Israel	273	849	0	3,052	0	0
Japan	50,149	17,839	147,867	242,053	16,230	71,005
Jordan	352	0	0	0	0	0
Korea, South	369	902	607	42,062	0	846
Kuwait	0	0	0	0	0	0
Malaysia	3,256	8,538	0	9,839	0	3,784
Pakistan	0	0	0	0	0	0
Philippines	21,532	4,592	5,535	15,597	3,170	1,587
Singapore	5,755	3,194	14,584	15,785	798	0

Continued--

Appendix table 10-- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity

Time period Schedule B commodity Partner	1978	1979	1980	1981
1674300--Wine nspf from fr grape/must				
Sri Lanka (Ceylon)	358 wg	70 wg	828 wg	1,623 wg
Taiwan	1,801 wg	2,837 wg	1,607 wg	3,857 wg
Thailand	262 wg	490 wg	6,408 wg	2,470 wg
Total	64,548 wg	32,160 wg	107,877 wg	140,320 wg
MIDDLE EAST	3,334 wg	1,091 wg	1,924 wg	1,637 wg
OCEANIA:				
AUSTRALIA	0	510 wg	5,214 wg	2,493 wg
NEW ZEALAND	712 wg	784 wg	3,921 wg	13,721 wg
ALL OTHER	5,939 wg	6,244 wg	1,349 wg	873 wg
Total	6,651 wg	7,538 wg	10,484 wg	17,087 wg
AFRICA:				
ALL OTHER	46,261 wg	31,962 wg	7,962 wg	102,723 wg
Total	46,261 wg	31,962 wg	7,962 wg	102,723 wg
1824420--Catsup and chili sauce				
CANADA	1,849,930 lb	734,833 lb	2,273,008 lb	1,763,365 lb
LATIN AMERICA:				
CENTRAL AMERICA:				
MEXICO	559,505 lb	168,258 lb	258,122 lb	314,588 lb
ALL OTHER	2,928,216 lb	2,997,558 lb	3,198,707 lb	3,372,451 lb
TOTAL	3,487,721 lb	3,165,816 lb	3,456,829 lb	3,687,039 lb
SOUTH AMERICA	516,795 lb	438,835 lb	647,198 lb	837,639 lb
TOTAL	4,004,516 lb	3,604,651 lb	4,104,027 lb	4,524,678 lb
WESTERN EUROPE:				
EC-10:				
Belgium and Luxembourg	4,200 lb	7,100 lb	2,900 lb	14,022 lb
Denmark	153,481 lb	144,414 lb	190,251 lb	197,359 lb
France	60,606 lb	5,880 lb	1,140 lb	810 lb
Germany, West	185,279 lb	81,846 lb	225,193 lb	111,674 lb
Greece	3,168 lb	0	12,600 lb	7,519 lb
Italy	36,824 lb	38,461 lb	69,325 lb	12,000 lb
Netherlands	248,682 lb	312,661 lb	317,091 lb	810,920 lb
United Kingdom	15,500 lb	18,100 lb	0	19,997 lb
Total	707,740 lb	608,462 lb	818,500 lb	1,174,301 lb
OTHER W. EUROPE:				
Austria	1,188 lb	3,168 lb	3,960 lb	4,178 lb
Cyprus	0	0	23,213 lb	5,550 lb
Finland	49,120 lb	183,160 lb	4,200 lb	0
Iceland	15,125 lb	7,100 lb	29,896 lb	65,750 lb
Malta and Gozo	0	5,252 lb	0	0
Norway	4,500 lb	0	1,530 lb	10,335 lb
Spain	0	0	0	8,375 lb
Sweden	672,383 lb	1,010,211 lb	1,126,334 lb	1,437,911 lb

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity

Time period: Schedule B commodity Partner	1982	1983	1984	1985
1674300--Wine nspf from fr grape/must:				
Sri Lanka (Ceylon)	252 wg	180 wg	120 wg	0
Taiwan	190 wg	567 wg	798 wg	484 wg
Thailand	0	4,463 wg	3,952 wg	2,628 wg
Total	94,209 wg	76,801 wg	94,922 wg	42,186 wg
MIDDLE EAST	650 wg	713 wg	625 wg	849 wg
OCEANIA:				
AUSTRALIA	0	179 wg	2,406 wg	0
NEW ZEALAND	2,655 wg	0	2,369 wg	698 wg
ALL OTHER	1,128 wg	906 wg	740 wg	11,285 wg
Total	3,783 wg	1,085 wg	5,515 wg	11,983 wg
AFRICA:				
ALL OTHER	45,314 wg	7,195 wg	742 wg	7,201 wg
Total	45,314 wg	7,195 wg	742 wg	7,201 wg
1824420--Catsup and chili sauce				
CANADA	1,936,316 lb	1,440,873 lb	1,264,918 lb	1,611,198 lb
LATIN AMERICA:				
CENTRAL AMERICA:				
MEXICO	215,259 lb	7,455 lb	28,307 lb	132,068 lb
ALL OTHER	3,577,829 lb	3,163,299 lb	2,338,078 lb	1,712,798 lb
TOTAL	3,793,088 lb	3,170,754 lb	2,366,385 lb	1,844,866 lb
SOUTH AMERICA	249,122 lb	52,501 lb	73,192 lb	93,585 lb
TOTAL	4,042,210 lb	3,223,255 lb	2,439,577 lb	1,938,451 lb
WESTERN EUROPE:				
EC-10:				
Belgium and Luxembourg	20,614 lb	0	0	0
Denmark	169,536 lb	157,066 lb	66,954 lb	51,844 lb
France	2,574 lb	48,658 lb	0	0
Germany, West	24,937 lb	159,579 lb	29,180 lb	12,750 lb
Greece	4,929 lb	0	0	115,856 lb
Italy	1,349 lb	22,824 lb	16,590 lb	0
Netherlands	139,326 lb	946,825 lb	256,530 lb	363,003 lb
United Kingdom	8,000 lb	11,854 lb	2,250 lb	28,439 lb
Total	371,265 lb	1,346,806 lb	371,504 lb	571,892 lb
OTHER W. EUROPE:				
Austria	2,414 lb	5,969 lb	10,710 lb	3,740 lb
Cyprus	31,470 lb	0	0	0
Finland	74,800 lb	0	0	0
Iceland	100,903 lb	5,055 lb	3,131 lb	2,380 lb
Malta and Gozo	0	0	0	0
Norway	0	0	2,430 lb	0
Spain	24,832 lb	0	6,916 lb	0
Sweden	1,446,829 lb	1,390,004 lb	1,156,436 lb	193,315 lb

Continued--

Appendix table 10-- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity

Schedule B commodity Partner / Time period	1986	1987	January-February 1987	January-February 1988
1674300--Wine nspf from fr grape/must:				
Sri Lanka (Ceylon)	0	0	0	0
Taiwan	3,013 wg	164,146 wg	33,059 wg	2,225 wg
Thailand	5,191 wg	7,420 wg	1,531 wg	0
Total	185,285 wg	524,121 wg	54,788 wg	86,459 wg
MIDDLE EAST	0	3,052 wg	0	0
OCEANIA:				
AUSTRALIA	1,175 wg	5,883 wg	1,579 wg	1,291 wg
NEW ZEALAND	0	0	0	0
ALL OTHER	3,760 wg	2,239 wg	0	0
Total	4,935 wg	8,122 wg	1,579 wg	1,291 wg
AFRICA:				
ALL OTHER	1,087 wg	14,544 wg	0	0
Total	1,087 wg	14,544 wg	0	0
1824420--Catsup and chili sauce				
CANADA	894,925 lb	3,821,857 lb	584,368 lb	333,917 lb
LATIN AMERICA:				
CENTRAL AMERICA:				
MEXICO	115,801 lb	25,640 lb	0	13,311 lb
ALL OTHER	1,972,679 lb	2,302,230 lb	230,955 lb	433,956 lb
TOTAL	2,088,480 lb	2,327,870 lb	230,955 lb	447,267 lb
SOUTH AMERICA	44,608 lb	50,191 lb	0	10,500 lb
TOTAL	2,133,088 lb	2,378,061 lb	230,955 lb	457,767 lb
WESTERN EUROPE:				
EC-10:				
Belgium and Luxembourg	0	0	0	0
Denmark	43,217 lb	79,347 lb	20,790 lb	6,460 lb
France	0	0	0	0
Germany, West	0	0	0	0
Greece	0	0	0	0
Italy	0	0	0	0
Netherlands	173,305 lb	812,834 lb	123,333 lb	0
United Kingdom	14,250 lb	112,669 lb	4,700 lb	0
Total	230,772 lb	1,004,850 lb	148,823 lb	6,460 lb
OTHER W. EUROPE:				
Austria	8,027 lb	0	0	0
Cyprus	0	0	0	0
Finland	0	0	0	0
Iceland	0	0	0	0
Malta and Gozo	0	0	0	0
Norway	3,750 lb	0	0	0
Spain	25,596 lb	0	0	23,915 lb
Sweden	142,970 lb	206,838 lb	49,092 lb	57,583 lb

Continued--

Appendix table 10- U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES
DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period Schedule B commodity Partner	1978	1979	1980	1981	1982	1983
1824420--Catsup and chili sauce						
Switzerland	14,800	30,930	92,498	28,910	58,417	36,820
ASIA:						
Bahrain	40,032	105,537	92,098	142,282	193,955	46,073
Hong Kong	3,700,423	3,885,313	5,253,746	4,662,354	5,895,960	5,468,779
India	4,200	0	2,120	0	0	0
Indonesia	313,876	223,290	295,681	256,186	463,008	543,369
Iran	63,071	0	0	0	0	0
Iraq	2,240	0	0	0	0	0
Israel	4,209	11,706	2,712	49,474	12,636	0
Japan	1,981,989	2,399,981	2,371,707	4,808,577	2,733,911	2,046,852
Jordan	0	24,000	28,607	115,789	30,247	104,417
Korea, South	39,271	66,824	131,560	74,550	24,221	106,943
Kuwait	270,883	198,234	498,426	440,099	541,528	878,350
Lebanon	27,896	26,780	109,124	70,911	82,391	116,479
Malaysia	9,300	12,431	1,889	17,836	39,083	43,530
Oman	28,007	12,986	32,612	55,303	37,537	53,617
Pakistan	3,000	6,786	0	0	0	0
Philippines	0	2,342	1,405	25,000	167,958	57,547
Qatar	54,018	66,996	42,751	32,100	18,050	10,760
Saudi Arabia	1,808,283	2,181,348	2,463,849	3,944,888	5,693,659	4,207,371
Singapore	1,705,720	1,819,779	2,856,201	2,247,609	2,155,843	1,113,041
Syria	9,324	26,417	2,520	14,700	39,600	49,926
Taiwan	17,219	19,629	4,200	46,254	13,476	14,550
Thailand	148,210	47,851	49,108	48,957	145,024	63,737
United Arab Emirates	174,985	192,089	441,660	633,815	398,688	239,862
Yemen (Sana)	0	0	0	0	0	6,300
Total	10,406,156	11,330,319	14,681,976	17,686,684	18,686,775	15,171,503
MIDDLE EAST	2,482,948	2,846,093	3,714,359	5,499,361	7,048,291	5,713,155
OCEANIA:						
AUSTRALIA	12,054	0	250,371	87,990	32,699	15,280
NEW ZEALAND	0	0	0	0	0	0
ALL OTHER	442,908	416,803	399,734	629,025	613,861	677,822
Total	454,962	416,803	650,105	717,015	646,560	693,102
AFRICA:						
ALL OTHER	138,048	142,701	42,523	326,749	149,748	135,509
Total	138,048	142,701	42,523	326,749	149,748	135,509

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*U.S. GOVERNMENT PRINTING OFFICE:1988-721-089:80230/ERS

Appendix table 10--U.S. EXPORTS OF PROCESSED FRUITS AND VEGETABLES--DOMESTIC EXPORTS
Flow: Domestic exports
Type: First unit of quantity
(Pounds)

Time period: Schedule B commodity Partner	1984	1985	1986	1987	January-February 1987	January-February 1988
1824420--Catsup and chili sauce						
Switzerland	16,886	0	16,658	0	0	0
ASIA:						
Bahrain	86,136	8,810	38,724	66,599	19,686	0
Hong Kong	5,488,492	6,108,853	7,811,232	3,371,773	804,502	1,257,187
India	0	6,051	0	0	0	0
Indonesia	192,408	280,907	281,036	162,622	26,613	0
Iran	0	0	0	0	0	0
Iraq	0	0	0	0	0	0
Israel	0	47,381	10,560	50,824	0	0
Japan	2,103,877	2,770,920	2,583,736	4,328,714	500,201	652,643
Jordan	64,545	0	0	0	0	15,239
Korea, South	49,235	178,575	78,955	66,997	0	57,705
Kuwait	390,479	216,566	381,830	668,662	79,081	60,800
Lebanon	58,764	3,000	0	34,003	0	0
Malaysia	4,531	34,817	10,856	26,028	0	0
Oman	61,888	92,885	103,035	26,600	26,600	0
Pakistan	0	0	0	0	0	0
Philippines	0	4,608	35,236	88,816	18,514	9,921
Qatar	55,625	0	10,346	4,996	0	13,006
Saudi Arabia	4,371,411	2,624,804	2,886,302	1,377,966	305,996	204,222
Singapore	823,204	417,123	608,540	553,111	33,316	211,305
Syria	6,300	20,250	0	0	0	0
Taiwan	44,485	43,844	140,133	142,853	5,250	70,918
Thailand	36,900	34,746	28,315	35,680	0	0
United Arab Emirates	187,509	163,622	304,056	205,343	9,711	0
Yemen (Sana)	0	0	0	0	0	0
Total	14,325,678	13,057,325	14,522,892	15,211,588	1,830,567	2,552,947
MIDDLE EAST	5,282,351	3,177,478	3,734,853	2,434,993	442,010	293,267
OCEANIA:						
AUSTRALIA	19,800	20,349	34,558	9,400	0	0
NEW ZEALAND	0	41,580	0	0	0	0
ALL OTHER	690,743	533,606	833,254	783,721	144,681	200,406
Total	710,543	595,535	867,812	793,121	144,681	200,406
AFRICA:						
ALL OTHER	63,370	108,985	55,353	33,870	5,400	0
Total	63,370	108,985	55,353	33,870	5,400	0

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